The Intersection of Health, States and Security: Global health security and the Ebola outbreak of 2014-15

Helena Jacobs

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Supervisor: Prof. P.P. Fourie

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Abstract

The concept of health security has been gaining prominence since the 1990s due to a renewed awareness of emerging and re-emerging infectious diseases. The intersection between health, states and security is, however, a contested one. The central question raised by critics of the health security agenda is focused on the meaning and implications of the concept; specifically the aims, methods and values of health security. These questions boil down to "security for whom and security from what?" The answer many scholars come to is that global health security is concerned with the containment of potentially serious and rapidly spreading infectious diseases, and with disease surveillance. The point is made that the strengthening of surveillance for infectious diseases brings little benefit to any country which lacks the public health infrastructure necessary for an effective response. Health security is thus geared more towards outbreak containment rather than disease prevention. What this means is that global health security mechanisms become activated to contain infectious diseases and prevent them from spreading from their countries of origin. The burden of disease is consequently carried by developing nations which lack the capacity to address these epidemics. This classical conceptualisation of global health security therefore brings little benefit to developing nations. Andrew Lakoff (2010) theorises that the classical conceptualisation of global health security emphasises only one regime within Global Health Governance, and identifies a second regime "humanitarian biomedicine." This regime aims to target diseases that currently afflict the poorer nations of the world in order to alleviate the suffering of individuals, regardless of national boundaries or social groupings. Humanitarian biomedicine offers a potential solution to the critique regarding what was left out of global health security. The aims of this study are to use Lakoff's thesis as a framework to explore how global health security initiatives play out in practice, what the aims of global health security initiatives are, what the methods by which attempts are made to reach these aims are, and what values underlie these interventions. The research question that this research investigates is thus whether the two regimes of global health security, as theorised by Lakoff, can be identified in practice in the event of an infectious disease outbreak such as the Ebola outbreak of 2014, and if so, what the implications or utility of a broader approach to global health security are. The main research question is supplemented by three sub-questions relating to (1) the implications of the development of a more humanitarian orientated global health security regime for developing states, (2) whether these two regimes can be complementary in practice as suggested by Lakoff and (3) what the existence of these two regimes provide in answer to the "security for whom, security from what?" question. It is found that two differing regimes can be identified in Global Health Governance initiatives during the Ebola outbreak. While aspects of a broader approach to global health security do exist, they are not the dominant considerations. The current configuration of Global Health Governance is not effective in addressing *global* health insecurity. A broader conceptualisation of health security that includes humanitarian concerns is thus necessary.

Opsomming

Die begrip gesondheidsekuriteit is van toenemende belang sedert die 1990's as gevolg van 'n hernude bewuswording van die gevare van bestaande en ontluikende aansteeklike siektes. Die kruispunt tussen gesondheid, die staat en sekuriteit is egter bestrede. Die kern vraag rondom gesondheidsekuriteit hou verband met die betekenis en implikasies van die konsep, veral met betrekking tot die doelstellings, metodes en waardes van gesondheidsekuriteit. Die vrae kom basies neer op "sekuriteit vir wie en sekuriteit van wat?" Die antwoord wat baie ontleders bereik is dat wêreldwye gesondheidsekuriteit gemoeid is met die bekamping van potensieel gevaarlike en snel verspreidende aansteeklike siektes, en die gepaardgaande waarneming van siektes. Die punt word gemaak dat die versterking van die waarnemingsmetodes van aansteeklike siektes min voordeel inhou vir lande wat nie oor genoegsame openbare gesondheidsinfrastruktuur beskik om effektief te reageer op die siektes nie. Gesondheidsekuriteit is dus meer aangepas vir die bekamping van uitbrake as die voorkoming van hierdie siektes. Wat dit beteken is dat wêreldwye gesondheidsekuriteit meganismes slegs geaktiveer word om aansteeklike siektes te bekamp en te voorkom dat hulle verder versprei van hul area van oorsprong. Die las van die siektes word dus deur ontwikkelende lande gedra, wat nie oor die vermoë beskik om die epidemies aan te spreek nie. Die oorspronklike konseptualisering van wêreldwye gesondheidsekuriteit hou dus min voordeel in vir ontwikkelende lande. Andrew Lakoff (2010) teoretiseer egter dat die oorspronklike konseptualisering van wêreldwye gesondheidsekuriteit slegs een regeringstelsel opmaak binne wêreldwye gesondheidsbestuur en identifiseer 'n tweede regeringstelsel, die sogenaamde '*humanitarian biomedicine'*. Die stelsel poog om die siektes wat tans die armer lande in die wêreld kwel aan te spreek om so doende die lyding van individue te verlig ongeag van nasionaliteit of sosiale stand. *Humanitarian biomedicine* bied dus 'n moontlike oplossing vir die kritiek oor wat uitgelaat is in wêreldwye gesondheidsekuriteit. Die doelwit van hierdie studie is om Lakoff se tesis te gebruik as 'n raamwerk om te ondersoek hoe wêreldwye gesondheidsekuriteit in praktyk uitgevoer word, asook wat die doelwitte, metodes en waardes van hierdie ingrypings is. Die navorsingsvraag van hierdie studie is dus: kan die twee regeringstelsels van wêreldwye gesondheidsekuriteit, soos geteoretiseer deur Lakoff, in die praktyk geïdentifiseer word in die geval van 'n uitbraak van 'n aansteeklike siekte soos die Ebola uitbraak van 2014? Indien dit wel die geval is, wat is die implikasies of nuttigheid van 'n breër benadering tot wêreldwye gesondheidsekuriteit? Die hoof vraag word aangevul deur drie verdere vrae wat verband hou met (1) die implikasies van die ontwikkeling van 'n meer humanitêr georiënteerde wêreldwye gesondheidsekuriteit vir ontwikkelende state, (2) of die twee regeringstelsels in praktyk aanvullend kan wees soos voorgestel deur Lakoff, en (3) wat die bestaan van hierdie twee regeringstelsels bied in antwoord tot die vraag van "sekuriteit vir wie, sekuriteit van wat?" Daar word bevind dat die twee regeringstelsels wel geïdentifiseer kan word in wêreldwye gesondheidsbestuur inisiatiewe gedurende die Ebola uitbraak. Terwyl aspekte van 'n breër benadering tot wêreldwye gesondheidsekuriteit dus wel bestaan, is dit nie die oorheersende oorweging nie. Die gevolgtrekking kan dus gemaak word dat die bestaande samestelling van wêreldwye gesondheidsbestuur nie geskik is vir die aanspreek van *wêreldwye* gesondheids-onveiligheid nie. 'n Breër konseptualisering van gesondheidsekuriteit wat humanitêre bekommernisse insluit is dus nodig.

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It is done! On to the next challenge.

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Abbreviations

ALIMA	The Alliance for International Medical Action
CDC	Centres for Disease Control
ECOWAS	Economic Community Of West African States
GAVI	Global Alliance for Vaccine and Immunisation
GHSA	Global Health Security Alliance
GHSI	Global Health Security Initiative
GISN	Global Influenza Surveillance Network
GOARN	Global Outbreak Alert and Response Network
HIV/AIDS	Human Immunodeficiency Virus/ Acquired Immune Deficiency Syndrome
IFI	International Financial Institutions
IHR	International Health Regulations
ILO	International Labour Organisation
IMF	International Monetary Fund
MERS-CoV	Middle East respiratory syndrome coronavirus
MDG	Millennium Development Goals
MSF	Médecins Sans Frontières
NGO	Non- Governmental Organisation
PEPFAR	President's Emergency Plan for AIDS Relief
PHEIC	Public Health Emergency of International Concern
SAP	Structural Adjustment Plans
SARS	Severe Acute Respitory Syndrome
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
UNMEER	UN Mission for Ebola Emergency Response
WHA	World Health Assembly
WHO	World Health Organisation
WTO	World Trade Organisation

Chapter 1: Introduction

> Disorders can be quickly healed if they are seen well in advance (and only a prudent ruler has such foresight); yet when, for lack of a diagnosis, they are allowed to grow in such a way that everyone can recognise them, remedies are often far too late - Machiavelli (1961:12).

1.1. Introduction and rationale

1.1.1. Disease: enemy of humanity and state

We as humans often see ourselves as at the top of the natural hierarchy and yet we are not invulnerable. We are attacked daily by an unseen enemy: bacteria, viruses and other microbes that cause disease. For millennia humans have suffered and died from disease, an occurrence that has had, and will continue to have an impact on the working and safe being of society. Our tendency to settle together in towns and cities for sanctuary and security, leading to the trend of increased urbanisation, has also brought with it an increased risk of disease. One of the most salient examples of the effects of disease on society is the outbreak of the bubonic plague in the Middle Ages aptly termed the Black Death. It is estimated that the disease caused the death of a third of Europe's entire population. This outbreak is not only credited with giving rise to quarantine practices (Kamradt-Scott, 2014:190), but also had a number of wider social implications for European society at the time. As stated by Porter (1999:30-31) the outbreak contributed to great political, economic, and social changes. The massive loss of lives created a new demand for labour that raised the value of the human body and encouraged greater geographic and social mobility, undermining the tenets of feudalism.

With the establishment of the modern state system, countries became even more aware of the "importance of the human body in providing economic and physical security to guarantee state sovereignty" (Kamradt-Scott, 2014:190). Public health thus became an important focus for the state because, as argued above, the health of its citizenry correlated with its military strength and thus directly with the security of the state. Medical scientists however still had no idea of how diseases were transmitted, and the focus was thus on sanitary practices for the prevention of disease, and quarantine was the only control measure when an outbreak did occur. With colonisation, and the resulting contact between Westerners and societies in the rest of the world, both groups were exposed to more novel diseases originating elsewhere to which they had no immunity. One of the most devastating examples of this is the spread of smallpox in the Americas, introduced by the conquering Spaniards under the leadership of Cortez. By 1595, over 18 million Native American people had died of smallpox and other

European diseases such as mumps and measles (Cartwright, 1972:120). On the other hand Europeans were ravaged by diseases such as cholera with which they were unfamiliar.

In 1851 the first International Sanitary Convention was held in France. This was an attempt to formalise international quarantine arrangements for cholera, predominantly between European countries. Between 1851 and 1944 fourteen further international sanitary meetings were held in response to the impacts of disease outbreaks on public health and international trade (Fidler, 2001:845). This period also saw the development of international health organisations to facilitate cooperation on infectious diseases, among which the Office International de l'Hygiène Publique (1907), the Health Organisation of the League of Nations (1923) and the World Health Organisation (1948). While the outbreak of the World Wars disrupted international cooperation on health issues temporarily, multilateral efforts were resumed in the aftermath with renewed force under the banner of the World Health Organisation (Kamradt-Scott, 2014:191).

By 1948 the threat to the international community posed by infectious diseases was well recognized. In 1918 the world experienced one of the most devastating epidemiological events in recorded human history, the Spanish Influenza pandemic, which killed approximately 40 million people worldwide (Kamradt-Scott, 2014:192). In addition to this several major epidemics of typhus, typhoid, malaria, cholera and yellow fever had a demonstrable impact on military forces throughout WWII, as well as hampering post-war reconstruction efforts. The security implications, not only in terms of loss of life, but also the potential economic damage due to the disruption to international trade, were clear. In 1951 the International Sanitary Regulations (later renamed the International Health Regulations) were created to "ensure maximum security against the international spread of diseases with a minimum interference with world traffic" (WHO, 1983:5).The International Health Regulations stated that member states were expected to report the outbreaks of six specific infectious diseases: cholera, typhoid, yellow fever, plague, smallpox and typhus. These diseases were targeted due to their highly contagious nature, the widespread human suffering they caused, as well as the fact that they had proven to be particularly disruptive to international trade (Kamradt-Scott, 2014:192).

With the advent of the Cold War, the rising concern about more conventional security considerations started to reduce the significance of health as a security issue. Attention and resources were increasingly diverted to the strengthening of national defensive capabilities.

At the same time advancements in science and medicine created a sense of optimism that infectious diseases no longer presented the threat they once had, as summed up by Porter (1999:1), "public health appeared to be victorious in achieving massive reductions in mortality rates in the Western world, when scientific medicine seemed to have almost eliminated the menace of pestilence." This sense was strengthened with the eradication of smallpox in the 1970s (Kamradt-Scott, 2014:193). In the 1980s this false sense of invulnerability was however shattered by the emergence of various new infectious diseases, the most prominent of which is HIV/AIDS. The development of antibiotics and vaccines coupled with improvement in water, sanitation, healthcare and food quality standards had led to unprecedented levels of health in high-income states. However HIV/AIDS affected the populations of Western countries as easily and as adversely as it was affecting low-income countries (Kamradt-Scott, 2014:193).

At the same time the end of Cold War hostilities and the decline in prominence of traditional security concerns led to a process of redefinition of the post-Cold War security agenda. Since the 1990s a broadening and deepening of what falls under the umbrella of security has been taking place. The focus is thus no longer just narrowly confined to traditional military concerns, but also includes amongst others, health concerns. The reasoning behind this redefinition is that "new global health risks had appeared as a result of emerging and re-emerging diseases, increased population mobility, spreading transnational crime, environmental change, and bioterrorism, and these posed new security dangers" (McInnes, 2014:7).

A further expansion also took place from the singular focus of state security to the consideration of human security, shifting the focus of security from the state to people. As argued by the UNDP (1994:22):

> [Security] has for too long been interpreted narrowly: as security of territory from external aggression, or as protection of national interests in foreign policy... Forgotten were the legitimate concerns of ordinary people who sought security in their daily lives... For many of them, security symbolizes protection from the threat of disease, hunger, unemployment, crime, social conflict, political repression and environmental hazards... For most people, a feeling of insecurity arises more from worries about daily life than from the dread of a cataclysmic world event.

Several changes in the conceptualisation of security thus led to the rise of the importance of health on the global political agenda. The most notable example of this was the decision by the United Nations Security Council in 2000 to pass resolution 1308 that identified

HIV/AIDS as a threat to international peace and security (Feldbaum, Patel, Sondorp & Lee, 2006:192). In the last decade and a half, a number of outbreaks of novel infectious diseases, such as Severe Acute Respitory Syndrome (SARS) in 2003 and several influenza outbreaks, notable among which was the H1N1 (swine flu) outbreak in 2009, occurred. These events led to the further development of the health securitisation agenda. While the use of the concept of security to advance public health objectives is lauded for generating greater political commitment and securing additional resources, it has also attracted criticism.

The central question raised by critiques of the health security agenda is focused on the meaning and implications of the concept. Questions are raised about the aims, methods and values of health security. As argued by Rushton (2011:779) the question boils down to security for whom and security from what? The answer many scholars give is that global health security as defined by the IHR (International Health Regulations), is essentially concerned with the "containment of potentially serious and rapidly spreading infectious disease threats, whether natural or man-made" (Rushton, 2011:788), with the focus on disease surveillance. Aldis (2008:373) makes the succinct point that the "strengthening of surveillance for epidemic-prone diseases brings little benefit to any country which lacks the public health infrastructure necessary for an effective response." While health security initiatives have brought benefits to developing nations (specifically in the form of major funding such as PEPFAR) health security endeavours are geared more towards outbreak containment rather than disease prevention. What this essentially means is that global health security mechanisms become activated to contain infectious diseases and prevent them from spreading from their origin (mainly in the developing world due to several factors, chief among which a lack of health infrastructure) to the rest of the world. The burden of disease is thus mainly carried by developing nations who largely lack the capacity to address these epidemics. This classical conceptualisation of global health security thus brings little benefit to developing nations

1.2. Problem statement and research question

Andrew Lakoff (2010) however theorises that this classical conceptualisation of global health security typifies only one regime within global health security and he identifies a second regime which he terms "humanitarian biomedicine". This regime aims to target diseases that currently afflict the poorer nations of the world in order to alleviate the suffering of individuals, regardless of national boundaries or social groupings (2010:60). Humanitarian

biomedicine thus offers a potential solution to the critique of what was left out of global health security. Lakoff posits that the two regimes "might best be understood as complementary rather than inherently contradictory facets of contemporary Global Health Governance" and if so "humanitarian biomedicine could be seen as offering a philanthropic palliative to nation-states lacking public health infrastructure in exchange for the right of international health organizations to monitor their populations for outbreaks that might threaten wealthy nations" (2010:75), creating a more mutually beneficial and truly 'global' health security regime. The aim with this study is to use Lakoff's thesis as a framework to explore how global health security initiatives play out in practice, what the aims of global health security initiatives are, what the methods by which it is attempted to reach these aims are, and what values underlie these interventions. Lakoff's framework is applied to the recent outbreak of Ebola Virus Disease in West Africa (2014-2015) as a case study. This case study might prove to be a useful way of analysing the thesis propagated by Lakoff as it showcases the interaction between the Global Health Governance mechanism and the developing world, as well as highlighting the interaction between state based and non-state actors in health security interventions.

The research question that this study investigates is:

- Can two regimes of global health security, as theorised by Lakoff, be identified in practice in the event of an infectious disease outbreak such as the Ebola outbreak of 2014, and if so what are the implications or utility of a broader approach to global health security?

Sub-questions supporting this primary research question include the following:

- What are the implications of the development of a more humanitarian orientated global health security regime for developing states?
- Can these two regimes be complementary in practice as suggested by Lakoff?
- What does the existence of these two regimes provide in answer to the "security for whom, security from what?" question?

1.3. Theoretical points of departure

The theoretical framework that is used in this study to explore the aims, methods and values of global health security, is the thesis developed by Andrew Lakoff. Lakoff identifies two regimes of global health: *global health security* and *humanitarian biomedicine*. According to

Lakoff the juxtaposition of these two regimes usefully highlights some of the tensions inherent in many contemporary global health initiatives (2010:59). Lakoff starts from the premise that global health is not a unified field. He argues that "different projects of global health imply starkly different understandings of the most salient threats facing global populations, of the relevant groups whose health should be protected, and of the appropriate justification for health interventions that transgress national sovereignty" (2010:59). According to Lakoff each of these regimes combines normative and technical elements to provide a rationale for managing infectious disease on a global scale. The two regimes thus rest on very different visions of both the social order that is at stake in global health and the most appropriate technical means of achieving it (2010:59). Each regime is however 'global' in the sense that it strives to transcend certain limitations posed by the national governance of public health (2010:60). The two regimes also differ with regard to the type of ethical relationship implied by a project of global health. As explained by Lakoff "the connection between health advocates and the afflicted (or potentially afflicted) can be one of either moral obligation to the other, or protection against risk to the self" (2010:60). A brief overview of the delineation between global health security and humanitarian biomedicine can be viewed in the following table.

Table 1-1: Regimes of Global Health

	Global Health Security	*Humanitarian Biomedicine*
Type of threat	Emerging infectious diseases that threaten wealthy countries	Neglected diseases that afflict poor countries
Source of pathogenicity	Social and ecological transformations linked to globalization	Failure of development; lack of access to health care
Organizations and actors	National and international health agencies; technocrats	NGOs, philanthropies, activists
Techno-political interventions	Global disease surveillance; building response capacity; rapidly develop biomedical interventions to manage novel pathogens	Provide access to essential medicines; drug and vaccine research and development for disease of the poor
Target of Intervention	National public health infrastructure	Suffering individuals

Ethical stance	Self-protection	Common humanity

(Lakoff, 2010:64).

These two regimes contain two narratives on Global Health Governance found in the literature on health security in International Relations. The first, global health security follows the dominant narrative based on national security approaches. The second, humanitarian biomedicine, is focused more on human security and developmental approaches.

1.4. Research design and methods

The method applied in this study is a qualitative desktop study based on interpretations of secondary sources obtained from the University of Stellenbosch's library and databases. The qualitative method was chosen due to the nature of the topic being studied. A qualitative approach is more adept in obtaining in-depth understanding of the discourse around complex and multifaceted social and political topics, such as health security. This study furthermore makes use of a single case study, the 2014 Ebola outbreak in West Africa, to investigate the hypothesis developed by Lakoff. As mentioned by Neuman (2005:14) one of the characteristics of qualitative research designs is the fact that the context is critical. By focussing on only one case study the findings of this study may not translate to other contexts. While multiple cases provide a "more robust test of theory and can specify the conditions under which hypotheses and theories may or may not hold" (Burnham, Lutz, Grant & Layton-Henry, 2008:65); due to time and space limits this research makes use of only this single recent case. The limitation of this study is thus that it may not be suited to generalisation, as the Ebola case study is unique and not a representative sample, but the method is still useful as data on a wide range of variables can be collected and a relatively complete account of the event can be given (Burnham *et al*., 2008:66). This study thus provides a relevant and contemporary analysis of whether Lakoff's thesis, that two regimes can be identified within global health security, hold true and how this plays out in practice. The research thus makes use of the deductive method. As explained by Babbie (2011:52) "deduction begins with an expected pattern that is tested against observation, whereas induction begins with observation and seeks to find a pattern within them."

1.5. Chapter layout

Chapter 1: Introduction. This chapter aims to introduce the reader the background and main discussion around the topic of health security. The research problem and question is also presented, and the theoretical model demonstrated. Lastly the research method used in the study is also elaborated on.

Chapter 2: Germ meets state: health securitisation. In this chapter the history of the development of Global Heath Governance, especially in terms of global governance of infectious diseases and the accompanying process of health securitisation will be explored. The first section focusses on the conceptual development of health security, while the second section explores the institutions of Global Health Governance.

Chapter 3: The Lakoff Thesis. In this chapter a theoretical background to the study will be provided locating Lakoff's framework in the broader literature on health security in International Relations. This chapter furthermore elaborates on Lakoff's thesis of Two Regimes of Global Health.

Chapter 4: The Ebola Outbreak of 2014-15. In this chapter the validity of Lakoff's thesis will be analysed by means of a case study focusing on the recent outbreak of the Ebola Virus in West Africa.

Chapter 5: Conclusion. The concluding chapter provides a summary of the study, as well as discussing the points that can be drawn from the analysis of Lakoff's framework. The research questions are also explicitly answered. This chapter furthermore suggest avenues for future research.

Chapter 2: Germ meets state: health securitisation

2.1. Introduction

In Chapter 1 the research problem of this study was linked to one of the central questions identified within the health security agenda regarding the meaning and implications of the concept of Global Health Governance. Questions are often raised about the aims, methods and values of health security. As argued by Rushton (2011:779) the question boils down to "security for whom and security from what?" The answer that is generally reached is that global health security is centred on the principles of international and national security, thus geared towards protecting the state from the spread of serious infectious disease epidemics and the resulting negative impacts. The mechanisms of global health security are consequently focused on disease surveillance and containment, which largely only proves beneficial to states that possess the health infrastructure and capacity to address these diseases. Building on this mainstream approach to global health security, Lakoff (2010) proposes the existence of two regimes within global health. The first of these is the classical *global health security* regime centred on state security. The second regime, *humanitarian biomedicine*, has a broader scope and attempts to address the burden of disease carried mainly by developing states. This study aims to answer the question of whether the two regimes of global health security, as theorised by Lakoff, can be identified in practice, and if so what the implications or utility of a broader approach to global health security will be?

In Chapter 2 an overview of the history of the development of Global Health Governance, especially in terms of the global governance of infectious diseases and the accompanying process of health securitisation is provided. In this chapter the political, institutional and legal pillars of global health security are also explored in more depth in order to provide an overview of the main discussions within the literature on the subject. In the first section of this chapter the focus is on the development of the ideas that formed the basis for the development of Global Health Governance, especially the emerging disease world view, and the way in which health and security have become linked. In the second section the development of the institutions of global health security are delineated.

2.2. The conceptional foundations of Global Health Governance

2.2.1. The return of the microbe and the emerging disease world view

In 1969 US Surgeon General William H. Stewart made the now infamous announcement that "it is time to close the book on infectious diseases, declare the war on pestilence won, and shift national resources to such chronic problems as heart disease" (Mayer, 2000:938). By the end of the 1980s this claim became increasingly unlikely due to the appearance of new diseases as well as the increasing incidences of diseases previously thought to be under control. Emerging infectious diseases[1] increasingly began drawing the attention of public health experts during the 1990s. This focus was in response to the AIDS crisis and the appearance of drug-resistant strains of diseases such as tuberculosis and malaria (Lakoff & Collier, 2008:9). The concept of emerging and re-emerging disease was developed in the works of Stephen Morse (*Emerging Diseases*, 1993) and the Nobel prize-winning J. Lederberg (*Emerging Infections: Microbial Threats to the United States*, 1992). Alarm about these emerging and re-emerging diseases came from various sources such as scientific reports by eminent organisations such as the National Academy of Science's Institute of Medicine (*Emerging Infections: Microbial Threats to Health in the United States*), the reports of journalists such as Laurie Garrett (*The Coming Plague: Newly Emerging Disease in a World Out of Balance*, 1994; *The Return of Infectious Disease*, 1996), as well local and national health officials and national security experts. Observers feared that the emerging disease threat, combined with weakening public health systems, amounted to a troubling reversal in the history of public health (Lakoff & Collier, 2008:9). The perception that infectious diseases were being conquered was waning and experts warned that we were witnessing a "return of the microbe." This led Barret, Kuzawa, McDade and Armelagos (1998:264) to conclude that "unfortunately the book on infectious diseases remains very much open and new chapters continue to be added at an alarming pace." The emerging disease worldview was thus adamant that all segments of society have to be prepared for new risks (Figuie, 2014:474).

2.2.2. Linking health and security

Traditionally the link between security and health is narrowly focussed on the manner in which disease may affect military capacity and hence the security of the state. The focus thus falls on the impact of disease on military operations, and vice versa, the impact of conflict on

[1]Referring to "viruses that either have newly appeared in the population or are rapidly expanding their range, with a corresponding increase in cases of disease" (Morse, 1993:10).

health and health care capacity (McInnes, 2014:7). In other words how health and disease can impact on the "high politics"[2] of state security and survival (Davies, 2010a:1). Conflict brings about immediate links between health and security in the form of soldiers and civilians wounded and displaced by war, but also has further medium and long term impacts. In the "medium-term the impact is felt when people are uprooted and forced to live in camps with little sanitation or health services, schools are disrupted, and food is scarce"(Brundtland, 2003:418). The impact of conflicts are compounded in the long term "when people spill across borders or flee their homes, professionals emigrate, and health and education systems crumble" (Brundtland, 2003:418). This process consequently creates a vicious circle of worsening social, economic and health conditions that provide a breeding ground for diseases and epidemics, thus linking it to the "low politics" of public health. This indicates the overall importance of health to the longevity of the state both in terms of security and capacity.

This traditional view of the link between health and security has been broadening due to various factors. The WHO indicates that recent trends in population growth, the incursion into previously uninhabited areas, rapid urbanisation, intensive farming practices, environmental degradation, and the misuse of antimicrobials have led to a disruption in the equilibrium of the microbial world (2007:vi). This has led to the emergence and re-emergence of infectious diseases. Since at least the 1980s we have experienced what some call a return of the microbe. Not only has there been an increase in the occurrence of infectious diseases (known, and unknown), but this has been accompanied by a decrease in the effectiveness of our methods of fighting these diseases due to the development of drug resistant strains. Furthermore these diseases have the potential to spread rapidly and globally due to increased population mobility owing to globalisation. In the words of Brundtland (2003:418):

> Globalization has shrunk distances, broken down old barriers, and linked people. Problems halfway around the world become everyone's problem. Like a stone thrown on the waters, a difficult social or economic situation in one community can ripple and reverberate around the world.

Price-Smith adds that developed states moreover came to the realisation that they were far too complacent and have failed to realise the fact that "despite their enormous technological and

[2] High politics as the traditional concern of International Relations namely, peace and security; contrasted to the low politics of efforts to increase standards of living and improve quality of life (as defined by McInnes and Lee (2012:23).

economic power, it is extremely unlikely that developed countries will be able to remain an island of health in a global sea of disease" (2002:122).

Furthermore since the end of the Cold War, there has been a departure from the sole focus on military might when defining threat. This has opened intellectual and policy space for the consideration of threats of a non-military nature (Yuk-ping & Thomas, 2010:447). In 1994 the United Nations Development Programme (UNDP) released an annual report titled *New Dimensions of Human Security*. This document is pointed to by Yuk-Ping and Thomas as a "landmark document that established the initial parameters of the then nascent field of non-traditional security research" (2010:448). The report identified seven fields of human security, among which health security (UNDP, 1994:24). In 2000 the status of health as security threat was confirmed by the release of a report by the Central Intelligence Agency (CIA) with the title *The Global Infectious Disease Threat and Its Implications for the United States* (CIA, 2000). In the same year the UN Security Council declared HIV/AIDS to be "a threat to international peace and security" with the acceptance of Resolution 1308 which formalised the securitisation of the disease (Youde & Rushton, 2014:1; Fourie, 2014:111). In 2007 the link between health and security was further built on by the WHO in their annual report on the global nature of public health security titled *A Safer Future: Global Public Health Security in the 21st Century*. Health challenges have thus increasingly been labelled as security threats that create collective insecurity for sovereign states and elevated to the realm of "high politics." Effective health governance is consequently framed as a "matter of national and international security that demands sophisticated surveillance, institutionalisation, and health policy prescriptions crafted at the multilateral level and then applied to the whole world" (Fourie, 2014:105).

2.2.3. Classifying health security

Health security can be approached from various angles. A useful classification is made by McInnes (2014:7) who identifies four terms which are used in debates over health security in the global context: national and international security, human security, bio-security and global (public) health security. These different approaches have different implications both for the range of health issues involved and for whose security is at risk. McInnes thus argues that each of these terms are "constructed for a particular purpose including promoting a certain agenda and privileging certain interests over others" (2014:7). In the next section each of these terms is discussed.

2.2.3.1. National and international security

National security is often characterised narrowly with the state as the referent object of security. The main concerns are direct threats, usually of a military nature, to the state, so called "high politics". The context within which national security operates is that of an "anarchic international state system where self-help is the order of the day" (McInnes, 2014:8). The concept of international security runs along the same lines with the addition that the security of one state is explicitly connected with the security of other states. This framework can thus be seen in the same light as the traditional link between security and health with the focus on preserving the power of the state. From this point of view the emphasis is placed on direct threats which relate to more traditional aspects of security. Ban (2003:21) lists "biological weapon attacks, attacks on medical personnel, facilities, and supplies by combatants in a conflict, and the declining health status of military personnel, peacekeepers, or deployed contingencies due to infectious disease" as examples of direct health threats. Indirect security threats involve risks that fit into a broader definition of security, such as global health emergencies caused by communicable diseases which have the potential to impact national and international security. The national security approach is the dominant term used in the literature of health security. Rushton thus summarises that "in general then, it seems fairly clear what types of health issues the literature see as threats to health security: the threats emanate either from the cross-border spread of infectious diseases, whether naturally occurring, deliberate or accidental; or from the effect of major health crises on state stability and security" (2011:782).

Several scholars have however pointed out that the focus is generally no longer solely on sovereign power, but also on improving the welfare of the citizens residing within a state (Elbe, 2009:86-107; Ingram, 2010). As argued by Altman (2003:417) if the primary aim of the state is the protection of the lives of its citizens, then risks to security can come in many forms other than just those of conventional warfare. Health issues can thus figure on the national security agenda if they are seen as a potential threat to the internal security of the state or have an impact on international stability, or cause exceptional levels of morbidity and/or mortality[3] in populations (McInnes, 2014:15). Examples of this national and international security approach to health security is evident in both the CIA report on the

[3] Morbidity refers to the relative incidence of disease and mortality to the number of deaths, or proportion of death to the population.

global infectious disease threat, as well as in the UN declaration of HIV/AIDS as threat to international peace and security.

2.2.3.2. Human security

The human security approach was developed as a critique of the narrow focus of "high politics" on national security and the protection of the state and the importance of the inclusion of issues considered as "low politics" which pertain to the protection of the individual was advocated. Human security approaches thus attempt to make individuals rather than states the referent object of security. The concept of human security was developed in various United Nations documents, the most referenced of which are the 1994 UNDP Human Development report titled *New Dimensions of Human Security*, and the 2003 Commission on Human Security's report titled *Human Security Now: Protecting and Empowering People* (Caballero-Anthony & Amul, 2014:33). The roots of these thoughts lie in classical liberalism's emphasis on the individual. Human security is defined as "freedom from want and freedom from fear" (Ogata & Sen, 2003:4), with a focus on human rights, humanitarianism and poverty relief. Health security was from the outset explicitly identified as one of the components of human security (Rushton, 2011:786). It differs from the narrow focus on infectious disease threats outlined in national security approaches by viewing health security in the broadest sense, including the full range of communicable and non-communicable diseases as well as explicitly linking health with poverty and inequality. Health security from this angle is thus focused on health and development. In principle this approach thus "seems to be a good candidate for a version of health security that is better equipped to capture the importance of addressing illness for the lives of ordinary individuals" (Elbe, 2005: 415-416).

While the concept of human security provided the traction for the focus on the importance of non-traditional security concerns, such as health security, McInnes argues that it has failed over the last decade to establish itself as the main security narrative (2014:13). Davies points out that "in practice, little progress has been made without calling upon traditional statist concerns and without representing health problems as potential threats to state stability, the economy and the 'rich' world as much as the 'poor'" (2010b:1189). Rushton agrees with Davies's analysis and adds that it is in line with what International Relations predicts about the role of power in determining global political priorities (2011:792). Rushton furthermore ascribes the decline of the human security agenda to the development of other paradigms of

global health, namely national and international security and international development (2011:792). The shifts occurring in these fields have had the effect that human security's claims to distinctiveness no longer seem as distinctive as they did in 1994. As argued by Chandler (2008:427-428), what once seemed a radical approach to security has been comfortably integrated into the mainstream of security policy. In terms of health many of the health threats to human security are captured in contemporary national and international security thinking. In addition to this the distinctive claim of human security, its focus on individual and communities, is undermined by the fact that it is both difficult to implement in practice in global governance systems dominated by states, as well as the fact that it shares much of its ideas with international development and human rights approaches (Rushton, 2011:793).

2.2.3.3. Bio-security

The meaning of the term biosecurity is considered vague, "covering almost everything from threats arising from biological weapons to more general risks to public health" (McInnes, 2014:13). The most specific focus is however generally on the risk posed by the development of new micro-organisms in laboratories, which includes both the deliberate and accidental release of pathogens outside of controlled laboratory environments. With the rise of concern over terrorism since the 9/11 terror attacks on the USA, more focus has also been placed on bioterrorism. The 2001 anthrax attack on the USA showed that the threat of terrorists using biological agents was far from hypothetical (Kamradt-Scott, 2014:195). One of the main fears is thus the occurrence of biological warfare, which is the "use of micro-organisms, toxins derived from living organisms, or bio-regulators[4] to deliberately cause death or illness" (Koblentz, 2014:118). In order to strengthen countries' capacity to respond to such threats forums like the *Global Health Security Initiative* (GHSI) and the *G8 Global Partnership Against the Spread of Weapons and Materials of Mass Destruction* were created. New momentum was also generated to strengthen protocols of pre-existing arrangements such as the 1972 Biological Weapons Convention. Biosecurity thus has a dual concern focussing on the release of pathogens whether accidental or intentional. The focus on bioterrorism and biological weapons is more closely aligned with traditional notions of issues that threaten state security. Fidler (2007:50) points to an alignment between bio-security and traditional

[4] "Bio-regulators are chemicals normally produced in the human body that control communication between cells and play a crucial role in governing the nervous, endocrine, and immune systems. Small imbalances in the level of bio-regulators can have dramatic effects on cognition, emotion, and physiological processes" (Koblentz, 2014:120).

notions of security that is based on the 'violence paradigm', "the threat of exogenous violence against the state, its military power, or its people."

2.2.3.4. Global public health security

The term global public health security (abbreviated to global health security) is largely associated with the WHO and its interest in how risks to public health have been globalised (McInnes, 2014:10). The concept has appeared in World Health Assembly Resolutions as well as in several reports by the Secretariat (WHO, 2001; WHO 2007). In their 2007 annual report the WHO defines global health security as follows:

> Public health security is defined as the activities required, both proactive and reactive, to minimise vulnerability to acute public health events that endanger the collective health of national populations. Global public health security widens this definition to include acute public health events that endanger the collective health of populations living across geographical regions and international boundaries… (2007:1).

The concept of global health security is also frequently used in relation to the revised IHR that were adopted by the World Health Assembly in 2005 and came into force in 2007. Global health security has thus become inextricably linked to the IHR (Rushton, 2011:787). Global health security in the context of the IHR is concerned with the containment of potentially serious and rapidly spreading infectious disease threats of the natural or manmade variety. This term is thus drawn from national security approaches.

Some scholars, for example Fidler (2005), argue that the new IHR-based global health security regime differs significantly from the 'classical regime' of national security that preceded it. While it does not completely abandon the state as referent object, some changes have been made that favour global health security over national sovereignty. Fidler refers to the fact that the WHO is no longer only reliant on information on outbreaks from state sources but can now also seek information from a range of non-government sources (2005:348). Rushton however argues that what is conceptualised under the IHR (2005) is a system of 'states+', "a safety net that helps to deal with situations in which a state is either unable or unwilling to report a public health emergency of international concern" (2011:789). This is thus still a statist rather than a globalist (see next section) version of global health as it is still concerned primarily with pathogens crossing state boundaries, and thus corresponds with the traditional aim of defending the nation state from exogenous disease threats.

McInnes furthermore perceives global health security as a call for action, for "collective international public health action [to] build a safer future for humanity" (WHO, 2007:ix). The

term thus becomes less of an analytical tool to describe a condition and more of a strategy or pragmatic practice "to increase awareness and encourage action for change by adding a sense of urgency and importance" (McInnes, 2014:11). McInnes thus concludes that "global health security is not an objective condition, but something constructed to promote health, a traditional task of health services nationally but now taken by [the] WHO onto a global stage with added urgency" (2014:11).

The point made by McInnes on the construction of the global health security agenda conforms to the framework developed by Buzan, Waever and de Wilde, the so called Copenhagen School. Buzan, Waever and de Wilde state that "it is a choice to phrase things in security… terms, not an objective feature of the issue…" (1998:211); or, as explained by Waever "the [u]se of the security label does not merely reflect whether a problem is a security problem, it is also a political choice, that is, a decision for conceptualization in a special way" (Elbe, 2006:125). According to the framework of Buzan, Waever, and de Wilde "much [of] security analysis entails making speculative predictions about future developments, necessitates prioritizing between competing claims with imperfect information, and, especially when it comes to wider social issues, requires deciding about whether an issue is best addressed under the heading of security rather than another competing framework" (1998:23). Buzan, Waever and de Wilde identify three ways in which a social issue can be presented in public debate. Firstly, an issue can remain non-politicised if it is not made an issue of public debate or decision. Secondly, it can become politicised if it is successfully made part of public policy and subject to public decision. Lastly, in extreme cases, an issue can become "securitised" meaning that the issue is "presented as an existential threat requiring emergency measures and justifying actions outside the normal bounds of political procedure" (1998:24). This does not include all instances in which word 'security' is used, or all calls for the implementation of emergency measures, but "only to those issues that are presented according to the particular logic or grammar of the security speech act" (Buzan, Waever, and de Wilde, 1998:25). The criteria for a security speech act are that: "(i) securitising actors (such as political leaders, intelligence experts, etc.), (ii) declare a referent object (such as a state) to be (iii) existentially threatened (e.g., by an imminent invasion), and who make a persuasive call for the adoption of (iv) emergency measures to counter this threat (e.g., declare war or impose a curfew)" (Elbe, 2006:125-126).

2.2.3.5. Statist and globalist perspectives

Davies (2010b) offers a further way to classify health security approaches. She argues that most of the literature on health security can be divided into two groups. These two groups are either "statist" or "globalist" in their perspectives (Davies, 2010b:1171; O'Manique& Fourie, 2010). The dominant statist perspective is based on traditional notions of national and international security and predominantly focussed on how states, as the providers of security, can contain health threats that can have a direct impact on their territory (be it economic, political or military). Security language is typically used in these analyses. The globalist perspective on the other hand is grounded on the well-being and rights of individuals, thus focusing on individual health concerns and how actors (states, as well as other local and global actors) act to impact the individual's health security (Davies, 2010b:1167).This approach thus has much in common with human security theory which maintains that health should be conceptualised as a human right. While the state remains a main actor within the globalist perspective, it is viewed as only one of a wide array of actors which have an equally significant impact on the health of individuals.

This classification of health security approaches is similar to that proposed by Lakoff (2010) as the two regimes of global health, the statist approach of global health security and the more globalist approach of what he terms humanitarian biomedicine (discussed in more detail in chapter 3).

2.2.4. Criticism of health security

2.2.4.1. To securitise or not

As discussed above, health security cannot only be approached from different angles, but scholars also differ on whether advancing health as an issue of "high politics" is in fact a prudent choice. Health securitisation is lauded for increased international mobilisation on health issues coupled with more funding earmarked for these concerns. As stated by Enemark, the "value of securitisation is that it promises to attract greater political attention and resources for protecting human health and human lives in the face of specific infectious disease threats" (2007:20). Other authors such as Elbe (2006:126) however point out that using the language of security on a growing number of social issues may not always be a favourable political development. Several scholars offer similar critiques of this trend. Stephen Walt argues that expanding the field of security studies to include non-traditional security issues "would destroy its intellectual coherence and make it more difficult to devise

solutions to any of these important problems" (1991:213). This is echoed by Deudney who points out that "[i]f everything that causes a decline in human well-being is labelled a 'security' threat, the term loses any analytical usefulness and becomes a loose synonym of 'bad'" (1990:464). Buzan, Waever and de Wilde also warn that "[b]asically, security should be seen as negative, as a failure to deal with issues as normal politics. Ideally, politics should be able to unfold according to routine procedures without this extraordinary elevation of specific 'threats' to pre-political immediacy" (1998:29).

The danger in securitising social issues is that the word 'security' is still connected to defence and the state. The language of securitisation is thus intrinsically linked to a statist perspective. There are several pitfalls to this perspective. On the one hand it may lead to a greater level of state mobilisation, but on the other it can also enable the state to encroach on an increasing proportion of social life where it might not be desirable (Buzan, Waever, and de Wilde, 1998:4). So while securitisation can boost international initiatives by raising awareness and resources, it is not without potentially negative consequences. As explained by Elbe "the language of security simultaneously pushes responses to the disease away from civil society toward military and intelligence organisations with the power to override the civil liberties of persons living with the disease" (2006:191). This "threat defence" logic invokes the mechanisms of national security and moves away from the norms of human security. In terms of health security this can undermine international efforts to address pandemics because it makes such efforts "a function of narrow national interest rather than of altruism" (Elbe, 2006:191). Elbe discusses this concern in connection to the case of HIV/AIDS:

> the securitization of the disease removes the issue from the more cosmopolitan and altruistic frameworks of health and development, locating it instead within a state-centric framework, where states are primarily concerned with maximizing power and security, rather than with addressing wider humanitarian concerns. In such a context, national and international action taken on [the disease] is likely to be confined to those instances where it touches upon the selfish security interests of states. States may take action to defend their core security interests, but they are unlikely to undertake measures extending much beyond these narrow concerns (2006:129).

Peterson adds that "this creates the impression that global health issues are not worth addressing in their own right, but only to the extent that they touch upon the core security interests of states, which may mean that in the long run, states will cease to be concerned about global health in areas where it does not concern their core national security interests" (2002:46, 80).

Several scholars thus offer the critique that the current global health security regime continues to be dominated by the statist perspective (Caballero-Anthony & Amul, 2014:36). As argued by Weir & Mykhalovskiy (2010:150-151) "[h]ealth may be securitized, but it is a narrow, state-centric version of health security, preoccupied with acute, trans-boundary public health emergencies rather than with problems of chronic diseases or social determinants of health."

2.2.4.2. The intertwining of collective and individual health security

Another point of criticism of global health security is the WHO 'all-risk' approach to detection and response designed to address the complete range of trans-border events that have acute effects on population health (Weir, 2014:22). A notable point is that endemic infectious diseases (diseases with a high and constant prevalence in a region) were not included in this all-risk framework because they are rarely associated with trans-border epidemics. This all-risk standard is governed by what the WHO terms a 'dual use' strategy that aims to complement international security with other public health functions, but this is often not the case. The WHO defines 'dual use' to "signify the benefits to both civilian public health and international security thought to arise from strengthening local, national and global surveillance and response capacities" (Weir, 2014:27). The WHO thus consistently takes the position that in order to be effective requires the strengthening of national and local public health systems. The goal of strengthening national core public health capacity in surveillance and response for the sake of preventing and controlling the international spread of disease however exists in tension with national and local public health goals if they shift focus away from diseases that are endemic to a region but pose no threat of trans-border infection (Weir, 2014:27). The focus of health security as propagated by the WHO is thus primarily on collective health security. Several critics argue that collective health security can only be achieved by strengthening individual health security (Heymann, 2015:1885). To use the cliché: a chain is only as strong as its weakest link.

Heymann argues that collective health security should be the sum of individual health security (security that comes from access to safe and effective health services, products, and technology), and thus necessitates global action to provide individuals in all countries with access to essential health care (2015:1884). Heymann uses the example of the smallpox eradication projects as illustration of the intertwined nature of collective and individual health security. During the mid-20th century smallpox was regarded as a collective health security

risk. Eradication removed the threat to collective health security, but it was accomplished because national eradication programmes had provided access to vaccines for all people at risk. Heymann points out that a further outcome of smallpox eradication was a movement to provide vaccines to children at risk of childhood infectious diseases. The Expanded Programme on Immunization (EPI), established by the WHO and UNICEF in the late 1970s now provides sustained vaccine supplies to countries at minimum or no cost and this prevents the spread of several infectious diseases in countries where health systems successfully deliver these vaccines. Heymann argues that this programme was not developed to provide a vaccine as means to protect collective health security, but to save the lives of individual children. One of the diseases targeted by this programme, polio, is now scheduled for eradication. Heymann thus concludes that "access to the polio vaccine has thus satisfied an individual health security need and at the same time led to herd immunity" (Heymann, 2015:1885).

The argument can thus be made that individual health security is the building block for collective and global health security. The current Global Health Governance mechanisms are however currently focussed on knee-jerk crisis response, activating only in the event of an infectious disease outbreak that has the potential to spread across borders. Davies (2010a:18) argues that this is due to the fact that securitisation requires shared agreement about the source of a threat and involves a particular logic involving identification of threat sources and referents. This is based on the theory of securitisation developed by the Copenhagen School. As explained earlier, according to this theory for issues to be defined as security issues they have to meet strictly defined criteria that distinguish them from the normal run of the mill political issues. They have to be "staged as existential threats to a referent object by a securitising actor who thereby generates endorsement of emergency measures beyond rules that would otherwise bind" (Davies, 2010a:19). This makes securitisation well suited for addressing acute crises, such as infectious diseases which are most likely to constitute an emergency requiring intensive short-term intervention by states, but less suited for chronic health crises or for the alleviation of the underlying cause of infectious disease such as poverty and poor health care in developing countries.

A further issue is the tendency of complacency. Fidler (2009:29) notes that to engage health at the foreign policy level requires crisis escalation, but as the crisis passes, public health prevention and protection will be neglected again which invariably leaves us vulnerable to the next health crisis. While the state security approach is thus effective in galvanising funds

and support in crisis situations this generally only benefits developed states with the health infrastructure and capacity to address health crises. This approach will not lead to truly 'global' health security as state self-interest and national security approaches are not geared towards attaining health security for all people regardless of their nationality. A solution might be to complement the statist approach with a more humanitarian approach as suggested by Lakoff.

2.3. Institutionalising global health security

The 2007 WHO report identifies three important landmarks in public health: quarantine practices, improved sanitation, and immunisation (2007:1-5). These three advances were implemented throughout the centuries by national authorities to improve the public health of their populations. Health was thus addressed mainly on national level. By the 19th century many states had however realised that national borders do not protect them from diseases of other regions and as global means of transport were continually improving and populations were consequently exposed to diseases from around the globe, a more international mode of disease control was necessary. From 1851 to 1900, ten International Sanitary Conferences were convened by several European states, focussing on the containment of epidemics within their territories (WHO, 2007:7). In 1902 the First International Sanitary Convention of the American Republics was held in Washington DC, leading to the creation of the Pan American Sanitary Bureau (now called the Pan American Health Organisation). In 1907 a European counterpart, the Office International d'Hygiène Publique was established. In the wake of the First World War the destruction of much of the public health infrastructure resulted in various epidemic outbreaks. The concern over these epidemics was the basis for the formation of the League of Nations Health Organisations and, in 1920, the Health Organisation set up a temporary epidemic commission tasked with assisting afflicted countries (WHO, 2007:7).

With the end of the Second World War and the forming of the UN the need for a global health organisation was put on the agenda once again, leading to the creation of the World Health Organisation in 1948. The WHO had an explicit mandate to serve as the "directing and co-ordinating authority on international health work" (Kamradt-Scott, 2014:192). In accordance with the history of international health cooperation, the WHO was expected to play a leading role in preventing, controlling and eradicating infectious diseases, but its role also expanded to include the establishment of new international standards and guidelines,

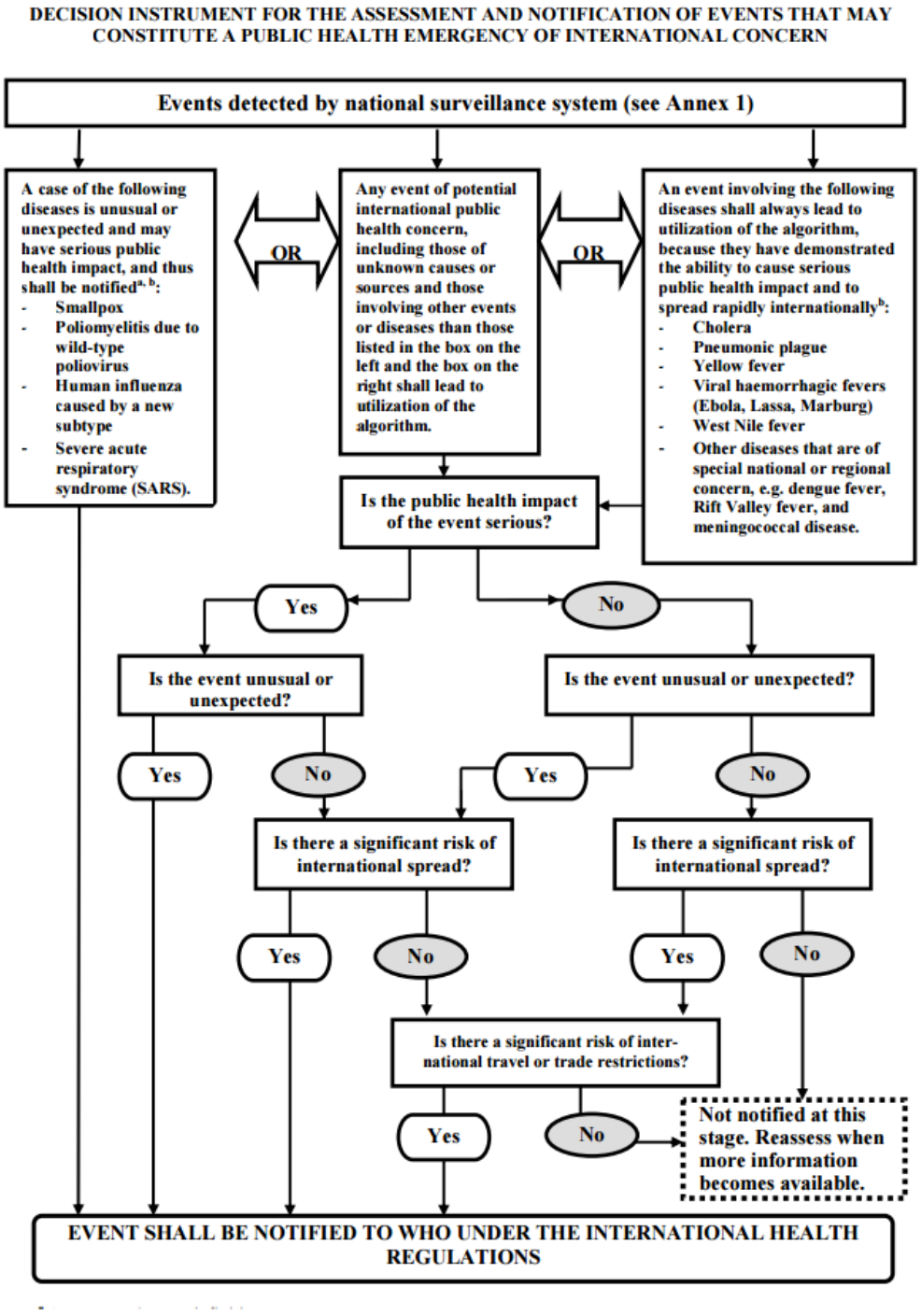
assisting member states with technical matters relating to human health, and providing leadership in reaching its "primary objective of enabling the world's population to attain the highest possible level of health" (Kamradt-Scott, 2014:192). In 1951 the decision-making body of the WHO, the World Health Assembly (WHA), endorsed the International Sanitary Conventions (renamed the International Health Regulation in 1969) to "ensure maximum security against the international spread of diseases with a minimum interference with world traffic" (WHO, 1983:5). Once adopted the IHR were automatically binding on all WHO member states. The expectation was that governments would report to the WHO outbreaks of certain specific infectious diseases (cholera, typhoid, yellow fever, plague, smallpox and typhus). The focus on these diseases was due to the fact that "they were highly contagious, caused wide spread human suffering and had proven to be particularly disruptive to international trade" (Kamradt-Scott, 2014:192). However, compliance with the rules on reporting outbreaks was problematic from the start, with governments frequently failing to report outbreaks because of fear of possible repercussions that would impact on travel and trade (Cash & Narasimhan, 2000:1359).

Interest in disease surveillance dwindled between the late 1950s and the early 1990s for several reasons, but mainly because countries no longer perceived infectious diseases to be a serious threat due to "the advances made in vaccines and treatment, the eradication of smallpox, a preoccupation with chronic diseases, and a confidence among health leaders that infectious diseases were a problem of the past" (Cash & Narasimhan, 2000:1358). Since the 1990s disease surveillance gained renewed prominence due to the emergence and re-emergence of infectious diseases.

The IHR have been undergoing revision since 1995 with the approval of Resolution 48.13, *Communicable Disease Prevention and Control: New, Emerging and Re-emerging Infectious Diseases*. This revision of the IHR process was finalised in 2005 and the new framework officially entered into force in June 2007. The main technical goals of global public health action around emerging and re-emerging infectious diseases still remained constant: early detection of outbreaks and rapid response to contain them (Weir, 2014:20). In 1997 the mechanisms for accomplishing these goals were put in place with the development of the Global Outbreak Alert and Response Network (GOARN). GOARN was institutionally tasked with "maintaining global health security by ensuring mechanisms for outbreak alert and response" (WHO, 2000:17). Previous forms of public health surveillance had been based on case reports whereby member states notified the WHO of outbreaks. However, notification

was limited, as mentioned above. Event-based monitoring was thus mainly sourced from unofficial information that flowed across national borders (Weir, 2014:21). The Emerging and Other Communicable Diseases (EMC) division of the WHO therefore developed the Outbreak Verification Team tasked with aligning unofficial outbreak alerts with sovereign confirmation of an outbreak from member states.

Figure 2-1 Decisions Instrument of the Revised International Health Regulations



(WHO, 2005:45).

Weir points out that the "techno-scientific apparatus known as 'global outbreak alert and response' (GOARN) was increasingly also called 'global health security' after the approval [in 2001] of WHA Resolution 54.14, *Global Health Security: Epidemic Alert and Response* … [i]ts title rendered 'global health security' equivalent to 'epidemic alert and response" (2014:21). Weir thus makes the point that global health security generally refers to the global outbreak detection and rapid response apparatus that had begun to take organisational form from 1995 in the WHO.

Furthermore the IHR (2005) developed a decision instrument that guides state parties in determining what disease events may constitute a "public health emergency of international concern" (PHEIC) for the purpose of notifying the WHO (Fidler, 2007:52).This decision tree approach identifies "acute health risks that cause, or have the potential to cause, high levels of morbidity and mortality as either security threats or public health emergencies of international concern" (Fidler, 2007:52). Figure 2-1 shows the decision instrument contained in the revised IHR.

The international security mandate of global health security was further extended by WHA Resolution 55.16 in 2002, titled *Global Public Health Response to Natural Occurrence, Accidental Release or Deliberate Use of Biological and Chemical Agents or Radio-nuclear Material that Affect Health*. This 'all-risk' approach to detection and response was designed to address the complete range of trans-border events that have acute effects on population health (Weir, 2014:22). See appendix A for a visual representation of the development of Global Health Governance.

2.3.1. Global health actors outside the WHO

While the WHO creates the central mechanism and institutions for managing global health, Global Health Governance involves a range of actors that interact over several levels from the local through to the national, international and global (MacLean & Brown, 2009:9). Several multilateral international organisations have been playing a larger role in global health matters, among which the WTO, the United Nations General Assembly (with the adoption of the Millennium Declaration in 2000) and the World Bank.

Since its acknowledgement in the *World Development Report (1993)* that health plays a critical role in economic development, the World Bank has increased its expenditure on health and is now one of the main funders (MacLean & Brown, 2009:9). Various other, less

prominent organisations, among which several UN organisation (UNICEF, UNDP, UNFPA), ILO and IMF also feature in Global Health Governance. Another state-led multilateral grouping that has also increasingly been involved in global health issues is the G8. The G8 has spearheaded several high-profile global health initiatives, such as the Global Fund to Fight AIDS, Tuberculosis, and Malaria, the G8 Africa Action Plan, the G8 Health Action Plan, as well as specific programmes on infectious diseases such as HIV/AIDS and polio (Kirton & Mannell, 2007:115-116). Bilateral relations are also an important part of the Global Health Governance architecture, with most of the major industrialised countries committing resources individually to research and global health projects. The most significant donor here is the United States, who through projects such as the President's Emergency Plan for AIDS Relief (PEPFAR) commits billions towards international health initiatives (MacLean & Brown, 2009:10).

Lastly, the involvement of influential non-state actors including pharmaceutical companies, civil society organisations and movements, and partnerships between state and non-state actors form one of the defining characteristics of Global Health Governance (MacLean & Brown, 2009:10). Major initiatives of Global Health Governance are thus invariably characterised by leadership that includes mixed actor coalitions, or so called public-private partnerships (PPPs). Prominent examples of these public-private partnerships include the Global Fund to Fight AIDS, Tuberculosis and Malaria, the Roll Back Malaria Partnership, the Stop TB Partnership, the International AIDS Vaccine Initiative and the Global Alliance for Vaccine and Immunisation (GAVI) (Harman, 2012:67). Another set of important actors within these private-public partnerships are philanthropic individuals, who range from celebrities like Bono, to major financial donors such as the Bill and Melinda Gates Foundation[5]. A recent partnership of notice is the Health 8 or 'H8' consisting of the Gates Foundations, the World Bank, the WHO, UNICEF, UNFPA, UNAIDS, GAVI, and the Global Fund. The rationale of the H8 is "to provide an informal cooperation forum where institutions can share ideas, knowledge, and provide a common strategy for combating some of the world's largest health concerns" (Harman, 2012:81). This grouping differs significantly from others such as the G8 in the sense that it is composed of institutions, not states.

[5] The Gates Foundations gave nearly US$900 million in grants for global health in 2012, and a total of more than US$13 billion to global health initiatives since 1994 (Youde, 2014a:12).

2.3.2. Challenges to the global health system

As discussed throughout this chapter, one of the major challenges of Global Health Governance is that there is no unified normative framework. There is thus little consensus on the "underlying moral and ethical principles that define global health cooperation" (Dodgson, Lee & Drager, 2002:21). As discussed by McInnes (2014) Global Health Governance can be approached from various positions, each informed by its own narrative on security. This challenge is thus linked to the ideational foundations of Global Health Governance.

The global health system also faces several challenges linked to its main institutions. The first challenge is related to defining leadership and authority in Global Health Governance. As mentioned in the previous section, health cooperation has evolved to include a complex array of actors, operating at different levels (Dodgson, Lee & Drager, 2002:21). While the WHO has historical prominence it is no longer the sole guardian of global health, and various authors point to a lack of an overarching authority in Global Health Governance (Youde, 2012:4) which is undermining the capacity to act decisively to address health issues of global concern due to the array of vested interests that characterise global politics. The issue of leadership and authority is a difficult, but important issue. As pointed out by Dodgson, Lee and Drager (2002:22) leadership and authority is important in setting the normative framework for global health cooperation, as well as providing "the basis for generating public awareness, mobilising resources, using resources rationally through coordinated action, setting priorities, and bestowing or withdrawing legitimacy from groups and causes."

Related to this is the challenge of generating sufficient resources for global health cooperation and distributing them appropriately according to agreed priorities (Dodgson, Lee & Drager, 2002:23). The current WHO financing system is ad hoc in nature, reliant on the annual spending decisions of member states, and the goodwill of private citizens and companies. The WHO discretion in budgetary spending is thus limited. There is also a disjuncture between issues promoted by donors and those prioritised by recipients. This issue will be discussed in more depth in chapter 3.

2.4. Conclusion

In this chapter the focus is on the development of Global Health Governance, providing a broad overview of the field. The idea of health as a security threat developed in the emerging disease world view that gained prominence in the 1990s. International health cooperation however has a long history stretching back to the first International Sanitary Conference in

1851 and the main institutions associated with global health also span back to the early 20th century, with the main focus on controlling the spread of infectious disease epidemics. The prominence of the idea of global health security however is a recent development, propagated by the WHO in several reports coinciding with the development of broad global health agendas by state and non-state actors, an unprecedented access to funds for health aid and an overall shift in thinking about Global Health Governance on a worldwide perspective. The concept is however not without problems. Scholars point to the fact that health security is still a contested concept, with varying normative conceptualisations and is thus not clearly defined. Questions thus arise about the aims, methods and values of health security. As pointed out in Chapter 1, these normative differences in global health security approaches are the focus of this study. Several scholars furthermore also question the utility and appropriateness of securitising health issues. The usefulness of the institutions of Global Health Governance is especially questioned. The critique of the institutions of Global Health Governance is focussed on a lack of leadership, insufficient funding and overall institutional insufficiency. The concept of global health has been developing over several decades, and continues to rapidly change in response to a changing global environment. Chapter 3 focusses on Lakoff's theory of the existence of two regimes of Global Health Governance.

Chapter 3: The Lakoff thesis

3.1. Introduction

In chapter 2 the conceptual and structural foundations of Global Health Governance were outlined, along with the main themes on health security in order to contextualise the research problem and research question focused on in this study. The aim with this study is to explore the possibility of an alternative answer to one of the central question identified within the health security agenda, namely "security for whom and security from what?" The research question is formulated in accordance with Lakoff's (2010) proposal regarding the existence of two regimes within Global Health. Can two regimes of Global Health be identified in practice in the event of an infectious disease outbreak and if so, what are the implications or utility of a broader approach to global health security?

In Chapter 3 the framework suggested by Lakoff is further expanded on. Lakoff founds his argument on the fact that Global Health is not a unified field (2010:59). Different understandings exist "of the most salient threats facing the global populations, the relevant groups whose health should be protected, and the appropriate justification for health interventions that transgress national sovereignty" (2010:59). Lakoff thus proposes the existence of two regimes within Global Health: *global health security* and *humanitarian biomedicine*. Lakoff argues that both of these regimes combine normative and technical elements to provide a rationale for managing infectious disease on a global scale, but that they rest on very different visions of both the social order that is at stake in Global Health and the most appropriate technical means of achieving it (2010:59). Both of the regimes are however "global" in the sense that they strive to transcend certain limitations posed by national governance of public health. Lakoff thus suggests that the juxtaposition between these two regimes can be useful in highlighting some of the tensions inherent in many contemporary Global Health initiatives. In Chapter 3 Lakoff's framework, which will be applied to the case study of the recent Ebola outbreaks in Western Africa in chapter 4, is further unpacked. Before moving on to Lakoff's framework it is necessary to provide some background on the developments in public health, from a national issue to one of global concern, in order to contextualise the so-called 'crisis of existing, nation-state-based systems of public health' on which Lakoff builds his framework. In the first section there is thus an overview of the development of the idea of global public health. This is done in response to the crisis of existing, nation-state-based systems of public health. In the further sections of

this chapter Lakoff's framework is situated in the literature on health and security in IR before the framework is explained in more detail. Lastly, some points of critique on aspects that might be relevant to the discussion of Global Health but that are not addressed by Lakoff's framework is discussed.

3.2. Global public health: how we got here

This section focuses on the historical development of global public health in relation to the 'crisis of nation-state-based systems of public health' as referred to by Lakoff (2010:63-64). Public health has gone hand in hand with human co-habitation for centuries, addressing in the most basic form, the issues of cleanliness, water supply and waste removal; from the Greek and Roman ideas of health based on the balance of the four humours (Hays, 2009:11), to the plagues and quarantines of the Middle Ages. Public health in the modern sense developed in the aftermath of the industrial revolution with the health and sanitary reform movements of the nineteenth and twentieth centuries that ushered in the era of state health care. These public health systems were designed to manage diseases that occur with regularity in a national population. As defined by Winslow:

> Public health is the science and art of preventing disease, prolonging life and promoting physical health and efficacy through organized community efforts for the sanitation of the environment, the control of communicable infections, the education of the individual in personal hygiene, the organization of medical and nursing services for the early diagnosis and preventive treatment of disease, and the development of social machinery which will ensure every individual in the community a standard of living adequate for the maintenance of health; so organizing these benefits in such a fashion as to enable every citizen to realize his birth right and longevity (Winslow in Koplan et al., 2009:1993).

Public health has thus primarily been a domestic state activity categorised as 'low politics' (King, 2002:764). For most of the twentieth century health policy was only occasionally discussed at the international level, and then only in relation to infectious disease outbreaks, or large-scale efforts such as the WHO's mass immunisation programme to eradicate smallpox (Davies, 2010b:1172). During outbreaks of infectious diseases the emphasis was placed on the responsibility of the host state to notify the WHO, and international efforts were focussed on developing mechanisms to prevent the outbreak from spreading through quarantine measures that regulate trade and travel. There is however an inherent connection between public health and the protection of the interests of states (King, 2002:764). One of the key functions of public health is thus the protection of its citizens against external threats, particularly infectious diseases carried across national borders. This necessitated the

expansion of states' interest in the health of populations beyond their borders and the creation of institutions devoted to international health (King, 2002:765).

With the creation of international organisations like the UN and WHO in the aftermath of the Second World War, health became defined as a human right and the WHO began providing assistance to, and formulating strategies for developing countries in order to advance the right to health. The link between health and human rights is explicitly made in Article 1 of the UN Charter, and Article 25 of the Universal Declaration of Human Rights. In this document it is claimed that:

> Everyone has the right to a standard of living adequate for… health and wellbeing of himself and his family, including food, clothing, housing, medical care and the right to security in the event of … sickness, disability…Motherhood and childhood are entitled to special care and assistance (UN, 1948, Article 25, paragraphs 1 and 2).

A push was made for universal access to primary health care in, amongst others, the "Health for All by the Year 2000" initiative and the Alma Ata Declaration (Fidler, 2010:5). While the WHO achieved important successes with this approach, such as the eradication of smallpox, the prominence of international health concerns waned during the Cold War era, being surpassed by geopolitical concerns of powerful states coupled with the perceived victory over infectious diseases. During the 1970s the world economy also underwent several economic crises. This led to a roll back of state functions, especially in developing states that were prescribed structural adjustment plans (SAPs) by the World Bank and International Monetary Fund. SAPs help governments restructure their economies in order "to control inflation, repay international debt and stimulate economic growth" (Pfeiffer & Chapman, 2010:150). Furthermore International Financial Institutions (IFIs) provide loans and debt relief if certain conditions are met. These conditions included that "governments must reduce their public sector workforce and lower remaining salaries, cut public sector budgets, remove subsidies and price controls, devalue local currency, sell state-owned enterprises and services, reduce taxes on foreign investment, weaken state environmental and labour regulations, and deregulate movement of capital" (Pfeiffer & Chapman, 2010:150). The effects of structural adjustment on health have been hotly debated since the 1980s (Breman & Shelton, 2007:219) with some arguing that this trend led to the weakening and in some cases collapse of public health infrastructure in developing countries.

Since the 1990s there has been renewed impetus in strengthening global health. A conceptual shift from international health (which requires and builds from the unit of the nation) and

global public health (which transcends the nation) took place. Global health in general implies the consideration of the health needs of all people above the concerns of particular nations. Furthermore the term global is also associated with the growing importance of actors beyond state-based national and international organisations (Brown, Cueto & Fee, 2006:62). As described by Fidler, global public health governance is: “the use of formal and informal institutions, rules, and processes by states, intergovernmental organizations, and non-state actors to deal with challenges to health that require cross-border collective action to address effectively” (2010:3).

Global health rose in importance in the 1990s due to a renewed realisation of the impact of infectious disease that can cross national borders, as embodied in the emerging disease world view. Certain health concerns were thus framed as security threats to states. This stemmed from the recognition that existing national public health system, designed to manage known diseases that occur with regularity in a national population, are inadequate to prepare for the potential threat of emerging and re-emerging infectious diseases (Lakoff, 2010:63). The focus was consequently placed on preparedness practices such as building capacity for the surveillance and containment of potentially catastrophic infectious disease outbreaks, especially in low capacity states.

The collapse of public health infrastructure also gave rise to developmental efforts to provide adequate health infrastructure to lessen the burden of disease on developing countries. As stated consistently by the WHO in its annual reports over a decade (1999-2009), a third of annual deaths globally, especially in poorer countries, are premature in the sense that they are “preventable or curable with existing knowledge, technology, medical and financial resources” (Lisk, Sehovic & Sekalala, 2015:27). From this angle the crisis is not disease emergence but the political and technical failure that led to the collapse of public health infrastructure. These two differing responses to the “crisis of nation-state-based systems of public health” form the basis for Lakoff's two regimes of global health.

3.3. Situating Lakoff in the literature

In this section the theoretical grounding of Lakoff's framework is firstly expanded on. This is followed by a discussion of each of the categories of Lakoff’s framework in the next section.

3.3.1. Incorporating health in IR

3.3.1.1. Traditional IR theories

Traditional accounts of International Relations are concerned with the relations (especially in terms of power) between states (Waltz, 1979), as well as extending to accommodate other major international actors such as international organisations (Keohane and Nye, 1977; Keohane, 1984; Nye, 1988). A distinction is thus made between domestic and international concerns, with the latter forming the core of IR. A key area of investigation is the system in which states operate (McInnes & Lee, 2012:24). Traditional theories agree that the state systems are inherently anarchic, they are however in disagreement on whether national interest is best achieved through cooperation (neo-liberal) or the competitive maximising of state power (realist and neo-realist theories). These state actors are furthermore perceived to be rational, basing their behaviour on assessments of what is in their best interest. In both of these theories war and peace have traditionally been the key issue facing the international state system. (Neo-) liberalism and (neo-)realism are both positivist theories based on the understanding "that knowledge is advanced through systematic, and methodologically rigorous, collection of data which then enables the investigator to identify patterns of behaviour." Then "these patterns allow investigators to build theories by inferring the causes behind actions and to use these theories to predict how subjects might behave" (McInnes & Lee, 2012:25). The role of theory from this perspective is to explain the world; a world that is considered to be external to the observer, and the resulting theory is thus separate from the world it is trying to explain. These traditional theories did not provide space for the consideration of health issues as relevant to the field of IR as health was perceived as a mainly domestic issue. McInnes and Lee however point to several examples where health could have featured more prominently in the traditional agenda for IR such as in Development Studies and in the study of human rights (2012:27-28). McInnes and Lee furthermore argue that "the cross/trans-border nature of many health issues pose important and interesting questions about the importance of cooperation and the establishment of rules and norms of behaviours" and "the potential for many diseases to spread between countries raises issues about the authority of international organisations" (2012:29). Health issues thus proves a fruitful avenue of research within IR

3.3.1.2. Critical theory

A distinction is moreover made between traditional 'problem-solving theory' and 'critical theory' (Cox, 1981; Horkeimer, 1982). The distinction is based on the purpose for which

theory is built. Where traditional theories are considered as external to the world, critical theory rejects this distinction and thus "stands apart from the prevailing order and asks how that order came about" (Cox, 1981:129).

For example, contrary to positivist approaches, constructivists argue that "the theories we hold cannot be deemed neutral and divorced from the world they seek to explain or understand; rather they construct or constitute the world" (McInnes and Lee, 2012:29). The values, norms and assumptions of investigating the world are thus important to how we understand the world, as the world is of our making and reflects our normative prejudices. This approach is more reflectivist, interested in the meaning and beliefs held by actors. This does not mean the material world is of no concern. Constructivists maintain that the material and ideational worlds closely interact with each other. As explained by Ruggie:

> Constructivists hold the view that the building blocks of international reality are ideational as well as material; that ideational factors have normative as well as instrumental dimensions; that they express not only individual but collective intentionality; and that the meaning and significance of ideational factors are not independent of time and place (Ruggie, 1998:33).

An important distinction made by constructivists is the potential for change in the manner in which we understand the world, perceive our own interests and ultimately how we behave in accordance. Interests are thus not objective givens, but created inter-subjectively, or as put by Wendt: "actors do not have a 'portfolio' of interests that they carry around independent of social context; instead, they define their interests in the process of defining situations and … identities, and interests are constituted by collective meanings that are always in process" (1992:398,407). As Smith points out the potential is thus that "having created [interest] we could create them otherwise; it would be difficult because we have all internalised the 'way the world is', but we could make it otherwise" (2001:244). Social constructivism would thus suggest that health was ignored as interests were not created in a way that allowed engagement with these issues (McInnes and Lee, 2012:30). McInnes and Lee thus suggest that the bipolar politics of the Cold War, with their narrow focus on issues of security, led to the exclusion of health issues in IR. By the end of the Cold War the social and material contexts was changing, and with them perceived interest, allowing global health to emerge on the IR agenda (2012:30). The most prominent example of the rising importance of health issues on the global stage was the Alma-Ata Declaration of 1978, bringing together Western and Soviet states to discuss the pressing need of primary health care. Arising from the changes at the end of the Cold War, the ideas of human security and the need for broadening the security agenda developed a degree of purchase in the academic and policy worlds. At the

same time more emphasis was placed on the way in which globalisation was affecting world politics. Within this context the incorporation of health into IR seems relatively straightforward. Thus, in the last couple of decades, health issues have increasingly featured as part of the academic agenda of IR (examples include Elbe, 2009, 2010; Davies 2010).

Research into health security can thus be approached from various theoretical angles, conforming to traditional security frameworks, or the contesting critical theory approaches, such as social constructivism. The theoretical angle of the research will influence the dominant narrative found within the research. While Lakoff does not explicitly state his theoretical orientation, the underlying nature of his argument points to a critical approach, especially his claim that global health can be approached from differing normative stands which influence the ethical, political and technical interventions that are proposed by actors in global health. His concluding remarks also give the sense that change in the way health security is defined is possible, which corresponds to one of the founding conceptualisations of critical security studies provided by Krause and Williams:

> Our appending of the term critical security studies is meant to imply more an orientation toward the discipline [of security studies] than a precise theoretical label … If the objective (or at least the outcome) of much scholarship in security studies has been to render the question and problem of security apolitical and largely static, critical theory takes the question of change as its foundation, in both an explanatory and an evaluative sense (1997:xii).

This also conforms to the argument made by Nunes (2014:61) that "the health-security nexus is not a natural state of affairs (according to which diseases are threats 'out there in the world') but rather a particular interpretation of physical phenomena, events, and conditions" or in other words "health security is not a fact of life, but rather a process through which disease is defined as a problem – a process that involves interaction, negotiation, and sometimes struggle between actors."

3.3.2. Dominant narratives of health in IR

The manners in which health issues have been incorporated into IR thus reflect certain dominant narratives. These narratives emphasise "certain types of risks, the interests of certain population groups, the way in which the global nature of the problem is defined, and the need for certain high-level political responses" (McInnes & Lee, 2012:34). Lakoff's framework focuses on two of these narratives.

In terms of International Relations theory, the classical conceptualisation of security propagated by realists and neorealist holds that national security interests are fixed, focussed

on threats that originate from outside the boundaries of the sovereign state and are traditionally military in nature (refer to the work of Morgenthau 1948; Waltz 1954, 1979; Walt 1991). According to these traditional theories of IR the primary raison d'être of states are self-preservation (Brown & Stoeva, 2014:306). As discussed in chapter 2, critical scholars in the 1990s, chief among which the Copenhagen School's securitisation theory framework, expanded the range of plausible threats to state security to include political, societal, economic and ecological factors. This mode of analysis remains state-centric as the referent object of security is still the nation state. Most of the literature on health security is written within this state-centric conceptualisation of security (Lee & McInnes 2003; Ingram 2004; Aldis 2008; Rushton 2011). This also forms the theoretical foundation for Lakoff's regime of *global health security*. These approaches still rely heavily on traditional understandings of what constitutes a threat and how threats should be conceptualised. From this point of view health problems are portrayed as threats equivalent "to a foreign enemy that must be vanquished or contained" (Davies, 2010b:1176).

A further expansion of security theory occurred with the development of human security that takes the individual as the referent object of security. Scholars working from the basis of the human security framework, argue that security has real meaning for individuals (Curley & Thomas, 2004). Security thus becomes concerned with "improving human well-being, empowering individuals, and addressing inequalities and marginalisation" (Brown & Stoeva, 2014:309). Davies nicely sums up the globalist-orientated approach to health security as follows: "the globalist approach does not assume that the state is necessarily the most significant or legitimate actor for delivering health to individuals. It tends to acknowledge a broader variety of health concerns because it is primarily interested in the existing issues that affect most people rather than the health issues that could affect the security of the state" (2010b:1189). The second regime of global health suggested by Lakoff, *humanitarian biomedicine*, can be associated with this globalist developmental stream of thinking stemming from human security approaches.

3.4. Unpacking Lakoff's framework

Lakoff uses six categories with which to differentiate between the classical *global health security* approach and the more human security-orientated approach of *humanitarian biomedicine*. These six categories are: the **targeted disease** (the type of disease threat that is

of interest), the **source of the pathogenicity**[6]**,** the **organisations and actors** that are involved, the **techno-political intervention** (which comes down to the actual form the interventions takes), the **target of the intervention** and the **ethical stance** taken by actors. For a brief summary of these categories refer to Table 1 in chapter 1.

3.4.1. Lakoff's framework

3.4.1.1. Targeted disease/Type of threat

The mainstream discussions of global health security are built on the emerging infectious disease narrative that developed in the 1990s within developed states, which identifies emerging and re-emerging infectious diseases as a security threat to states. The focus is largely on the potential threat of certain infectious diseases such as influenza and the impact that large scale outbreaks can have on state security, the economy and political stability. As explained by Enemark "the best candidates for securitization are those infectious disease threats that inspire particular human dread, and which therefore generate a level of societal disruption disproportionate to the mortality and morbidity they pose" (2007:1). This makes health security approaches well suited to addressing acute crises of particular health security threats, such as bio-weapons and pandemic influenza, but less suited to addressing chronic health crises and alleviating the underlying causes of infectious disease (Davies, 2010b:1175).Health security discussions are thus overwhelmingly focused on addressing the symptoms, rather than the causes, of insecurity. They have largely failed to take into account underlying determinants of health, in particular complex structural problems like environmental degradation, poverty, underdevelopment, access to food and so forth (Brown & Stoeva, 2014:310). Davies thus argues with regard to health security that "solutions to health crises can potentially divert attention away from the most deadly diseases and their causes by drawing attention to only those problems that have 'headline-grabbing' qualities" (Davies, 2010b:1175).

In contrast to this approach, humanitarian biomedicine aims to address the neglected diseases that afflict developing states. This approach centres on to the fact that security challenges are posed by a great variety of conditions of ill-health. The focus of the existing health security literature on the threat of trans-border infectious disease is very narrow and leaves out a multitude of concerns such as neglected tropical diseases and infectious diseases prevalent in

[6] Pathogenicity **is** defined as: "the ability of a pathogenic agent to produce a disease" (Stedman's Medical Dictionary for the Health Professions and Nursing, 2012, s.v. 'pathogenicity')

low and middle income countries (Brown & Stoeva, 2014:310). While these diseases often create the conditions for pathogens to spread and antibiotic resistance to emerge, they are however not as easily securitised (Davies, 2010b:1175). This can be ascribed to the fact that, according to Buzan *et al.*'s theory of securitisation "for issues to be defined as security issues they have to meet strictly defined criteria that distinguish them from 'normal' politics. They have to be staged as existential threats to referent objects by a securitising actor who thereby generates endorsement of emergency measures beyond rules that would otherwise bind" (Buzan *et al.*, 1998:5). Davies hence argues that infectious diseases are generally the health issues that are most likely to constitute an emergency that requires intensive short-term intervention by states (2010b:1176).

A further issue that is identified in terms of health security approaches is that what is perceived by one state as a security threat may not be so perceived by other states. For example sub-Saharan African and Asian states cope with a number of infectious diseases. Asking these states "to securitize one particular disease, is to ask them to adopt new priorities that may not fit with their perceived or actual health needs" (Davies, 2010b:1179). There could thus be a mismatch between the disease that is securitised and the health problems that are actually impacting people's lives. The field of health security is thus trapped between an impetus to elevate health as an existential security threat and the fact that, as presently conceived, security might in the end not be a useful approach for framing and institutionalising the health problems that confront most of the world's populace.

It is also important to keep in mind that all cases of poor health that affect large numbers of the world population are not the result of communicable diseases. As pointed out by Davies (2010b:1190) "children dying from unclean water, adults dying from chest infections because they cannot afford antibiotics, women dying from unsafe abortions, none of these evoke a perception of threat that makes states want to embrace changes 'beyond the normal rules of the game'." It is this gap within health security that humanitarian approaches seek to address.

3.4.1.2. Source of pathogenicity

In line with the emerging infectious disease narrative, health security approaches point to globalisation and its accompanying social and environmental/ecological transformations as the source of the renewed onslaught of infectious diseases (Figuie, 2014:474). Ecological changes (such as population growth, the incursion into previously uninhabited areas, rapid urbanisation, intensive farming practices and environmental degradation) in recent times

brought on a re-emergence of infectious diseases. Compounding this problem is the fact that due to increased global mobility these diseases have the potential to spread rapidly and globally. The focus is thus on changes "out there" in the environment.

Humanitarian biomedicine approaches however point to the failure of development and the accompanying lack of access to healthcare as the source of the problem. The focus is thus on the failings in the global health system itself. Approaches from this point are based on the idea that policies and practices should improve conditions in the developing world where the developed world becomes something of a benchmark for measurement (McInnes & Lee, 2012:19). The central idea is thus "the binary divide in the international system between the 'haves' and the 'have-nots' and the responsibility of the latter to assist the former" (McInnes & Lee, 2012:19). Since the 2000s developmental aid centred on health increased substantially, indicating the increased prominence of these ideas. The origins of these funds were from traditional sources such as the G8, as well as from a host of new global actors and initiatives such as PEPFAR and the Millennium Development Goals (MDG).

3.4.1.3. Organisations and actors

Health security focuses on state led organisations as the primary actors in global health. The emphasis is thus placed on the role of national and international health agencies in mitigating health crises. Brown and Stoeva (2014:309) argue that thinking of health as a cause of insecurity has ontological significance. The significance lies in the fact that because health is delivered through the existing government-run infrastructure of public health, it means that the state is automatically envisioned as the primary centre of authority and the source of solutions to a particular crisis. Non-state entities and structures are thus deemed unnecessary because states are perceived to have sovereign control over their territories and population (Brown & Stoeva, 2014:309). In dealing with disease political authorities will however have to work with a wide array of actors, from medical professionals, local authorities and civil society organisations to pharmaceutical companies, intergovernmental organisations and private foundations. All of these actors can impact on the ability of states to deliver security to their citizens. Davies (2010b:1167) similarly points out that as the range of actors that can impact on an individual's health has expanded and the idea of the state as the exclusive or primary deliverer of health care has declined. This has led humanitarian biomedicine to focus on the impact of non-state organisations and actors as alternative or contributing providers of healthcare, both in regular public health provision and in times of crisis.

3.4.1.4. Techno-political intervention

This term refers to the actual actions that are taken to address health risk. The main mechanisms of global health security are focused on disease surveillance and containment. Interventions are thus aimed at creating systems of global disease surveillance to alert states of outbreaks of infectious diseases, building response capacity in states to address outbreaks of infectious disease of global concern, as well as putting measures in place to rapidly develop biomedical interventions to manage novel pathogens. As mentioned, this process is only geared towards certain infectious diseases and thus does not necessarily help build broad public health capacity or lead to overall improvements in healthcare delivery in states with weak infrastructures (Davies, 2010b:1177). These measures thus only advance health security in states that already possess capable health infrastructures. This fact was illustrated in 2007 when the Indonesian government refused to share samples of H5N1 avian influenza with the World Health Organisation's Global Influenza Surveillance Network (GISN). This network collects samples of flu viruses from around the world and uses these samples to determine the composition of yearly vaccines (Lakoff, 2010:60). As the country where the most cases of avian influenza had been reported, Indonesia was a potential epicentre for a H5N1 outbreak. The reason behind Indonesia's refusal to share virus samples was based "on the discovery that an Australian pharmaceutical company had developed a patented vaccine for avian flu using an Indonesian strain of the virus, a vaccine that would not be affordable for most Indonesians in the event of a deadly pandemic" (Lakoff, 2010:60). So "while Indonesia had been delivering virus samples to WHO as part of a collective early warning mechanism, its population would not be the beneficiaries of the biomedical response apparatus that had been constructed to prepare for a deadly global outbreak" (Lakoff, 2010:60).

In contrast to this humanitarian biomedicine provides health aid. This takes the form of providing access to essential medicines, as well as promoting drug and vaccine research and development in the case of diseases afflicting developing nations, with the aim of alleviating the burden of disease.

3.4.1.5. Target of intervention

The target of each of these approaches is in line with the predominant security theories that run through most of the discussion on Global Health Governance, on the one hand, the traditional notion of state security, and on the other, that of critical human security theory. In accordance with human security the globalist-orientated perspective of humanitarian biomedicine begins by asking what makes individuals insecure or unhealthy. The target of these interventions is thus the individual.

The statist health security approach challenges this view on the grounds that individuals cannot be secure and healthy unless states have the capacity to provide health services (Davies, 2010b:1171). From this point of view national security is a precursor to good health. Emphasis is thus placed on the state (especially the military, economic and political structures) as referent object that can be rendered insecure by health threats such as infectious diseases or bioterrorism. The best response to threats from this point of view is thus for individual states to develop proficient health security policies, strategies and capacities (Davies, 2010b:1176). The target of intervention for health security is thus national public health infrastructure.

Some scholars also point to a midway between these two stances and hold that states play an important role in health security but that national security is not the only concern as human security is of vital importance as well. States should thus not automatically be prioritised as there are a number of potential systems of governance that might better protect the health of individuals. As stated by Davies “states are only to be valued if they actually do improve people’s lives” (2010b:1171).

3.4.1.6. Ethical stance

The ethical stance taken by actors provides the overarching reason for global health interventions that transgress national sovereignty. As explained by Brown and Stoeva (2014:304) this is often an ethos of security over an ethic of care. Health security can become caught up in self-interest as the logic becomes one of preventing ‘external’ problems from entering the state’s territory. According to this point of view “assistance should be provided to developing states to help ‘fix’ their health infrastructure because it protects the rich West and states that are currently ‘secure’ from these pathogens in the long run” (Davies, 2010b:1177). Peterson (2006:46) however argues that “appealing to the national interest of advanced industrialised states like the United States to justify massive commitment to

international disease control will likely fail, because the true security implications of infectious diseases for the United States remain limited and indirect." The securitisation premise thus "relieves Westerners of any moral obligation to respond to health crises beyond their own national borders" (Peterson, 2006:46). Humanitarian biomedicine however makes a globalist appeal on the grounds of common humanity; that a truly global health security addresses the health concerns of all individuals, not only the affluent. This briefly delineates the two arguments on ethics in global health focused on by Lakoff. Global health ethics literature forms a substantial subfield within global health research (see for example Ruger, 2006; Benatar & Brock, 2011). As discussed in the next section, the ethical stance of actors is identified as one of the central defining categories within Lakoff's framework, but due to space constraints this paper cannot discuss this in more detail.

3.4.2. Critique

In this section the utility of Lakoff's framework is reflected on and some salient points not touched on by Lakoff but that might prove relevant to the case study of the Ebola outbreak is highlighted.

3.4.2.1. Utility of Lakoff's framework

Broadly speaking the utility of the framework suggested by Lakoff lies in its outlining of the duality in global health initiatives: (1) approaches centred on national security, and (2) those centred more on humanitarian and developmental issues, related to health. It might prove useful to identify these 'regimes' in practice, as is the aim of this research. Furthermore the categories Lakoff identifies with which to differentiate between these two regimes are the central points of contention in the main narratives within health security. These categories are thus useful in outlining the issues of concern and debate within the literature on health security. This is especially relevant in terms of the discussions on what diseases should be the focus of health security initiatives, the role of non-state actors in global health, as well as the normative issue of the ethical stance taken by actors. The ethical stances that underlie global health initiatives might prove especially useful in providing focus on the research problem identified in this study: the question of "security for whom and security from what?" The ethical stance of actors in global health is important because this informs every other action taken, from the reasoning behind it, to the focus of the method, as well as the method used during the intervention. There is however a few relevant issues not touched on by Lakoff, which is discussed in the next sections. One limitation of Lakoff's framework is the lack of

detail on each of the categories. Lakoff's framework thus needs to be supplemented with other sources for a more detailed discussion. Furthermore, as Lakoff's (2010) article is still relatively recent it has not been cited by many other scholars, the only exception being in the field of anthropology were a few authors have utilised the concept of humanitarian biomedicine (see for example Redfield, 2012).

3.4.2.2. Thinking pragmatically

While the ideal conception of health security should prioritise alleviating the long-term causes of ill-health globally, current policies are not geared towards this goal. Current global health policies are ad-hoc policies that are described as being "targeted narrowly to infectious diseases, provide weakened security for only a few, and which ultimately leave a vast majority of human beings vulnerable to what in most cases are preventable health risks" (Brown & Stoeva, 2014:304-305). Some scholars however suggest that this tension is systemic and might thus prove irresolvable. This is due to the fact that the current national and international order is intrinsically state-centred, "where domestic and foreign health policies prioritise short-term domestic needs over more long-term policies that could deliver greater longitudinal benefits to a wider population" (Brown & Stoeva, 2014:304). Thinking pragmatically about the issues, the conclusion can be drawn that a radical reworking of the global health system, including the role of the state, is unlikely to happen any time soon. Davies thus suggests that "change will be incremental, prompting analysts to concentrate on the relatively minor reforms that might make marginal improvements" (2010b:1182) and will be reached by working within the predominant structures. The conclusion can thus be drawn that it is unlikely that a global health regime focussed more on the alleviation of the long-term global disease burden, will become a dominant consideration in health security. The most pragmatic approach would thus be to focus on the incorporation of these concerns in some way in the current Global Health Governance system and structures.

3.4.2.3. The unsavoury matter of money

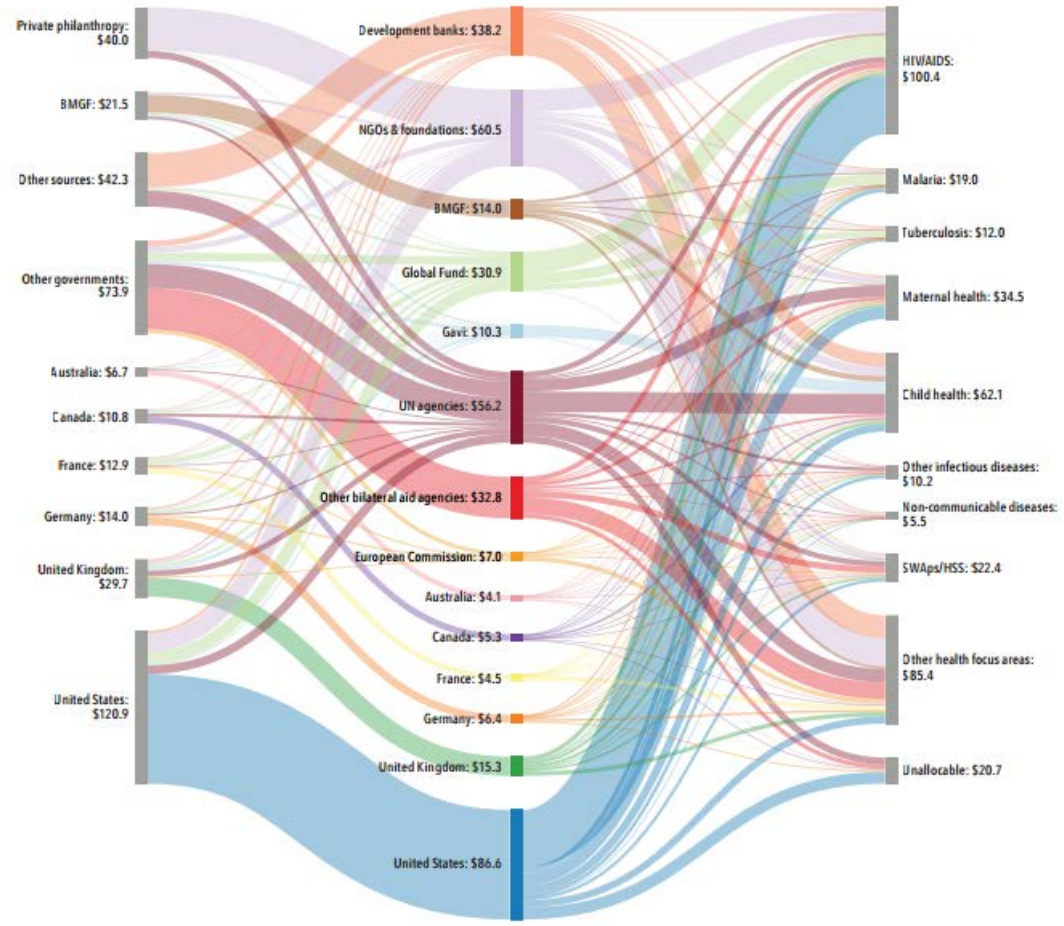
A further consideration is the question of who controls agenda-setting in global health. The reality is that the agenda is controlled by finances. The WHO, historically the biggest actor in global health, had a budget of US$5 million in 1949, its first year of operation. By 2009 the WHO budget topped US$4.227 billion, this sum has however been shrinking since then in reaction to the effects of the global economic recession and calls for the organisation to undertake significant reforms (Youde, 2014a:8). During the 2014-15 period the WHO budget

shrank to US$3.977 billion. This is a trend in global health funding in general, with funding stagnating since the global economic recession. The Institute for Health Metrics and Evaluation (IHME) states that "since 2010 global health funding has entered a 'no-growth' phase, were funding has plateaued or declined" (Institute for Health Metrics and Evaluation, 2013:16-18). Global health funding dropped from US$28.2 billion in 2010 to US$27.4 billion in 2011 (Youde, 2014a:14).

A major issue related to finance is the fact that the WHO does not have full discretionary control over its budget; with member-states allocating funds for certain projects. The WHO receives two types of funds: regular budgetary funds and extra-budgetary funds. Regular budgetary funds support the WHO's basic organisational cost, annual health programmes and selected research programmes. Each member state contributes regular budgetary funds in accordance with the size of its economy, and the WHA decides how these funds are allocated. The largest portion of the WHO's budget comes from extra-budgetary funds, which are entirely voluntary contributions from member-states designated for specific projects. Since member-states choose how and whether to allocate extra-budgetary funds, the WHO has almost no control over them. For the 2014-2015 budget cycle extra-budgetary funds totalled 77 percent (US$3.048 billion) of the organisation's total funding (Youde, 2014a:9). The rise of extra-budgetary funds has "raised concern about undue influence on the WHO's policy agenda, distorted and disproportionate funding in certain areas, and the inability for the WHO to engage in long-range planning" (Youde, 2014a:9).

The WHO is however not the only actor on the scene, and shares the Global Health Governance space with a number of other intergovernmental, non-governmental, and private actors. In the last few years the World Bank has become one of the largest funders of global health programmes. Other large funders are UNAIDS, the Global Fund and the Gates Foundation. Figure 3-1 illustrates the complicated nature of global health funding. Another important trend is the shift towards non-governmental organisations in providing a bigger percentage of global health funding than state actors. This indicates the increasing importance of non-governmental organisations in Global Health Governance that "places non-state actors in an important position within a largely state-based system" (Youde, 2014a:14).

Figure 3-1 Flows of Development assistance for health from source to channel to health focus area, 2000-2014



(Institute for Health Metrics and Evaluation, 2015).

As is the case with most issues – global health is underfunded. Notwithstanding the growth in development assistance since the 1990s, increasing by double digit percentages nearly every year, there are severe funding shortfalls. A recent study suggests that the international community needed to contribute between US$36 billion to US$45 billion to achieve the health goals a set out in the MDGs alone (Carrasco, Coker and Cook, 2013:1). While aid "in general fluctuates from year to year based on donors' economic standing, strategic imperatives, and humanitarian impulses", the fluctuation in global health aid funding leads to serious complications (Youde, 2014a:15). Youde argues that decreases in funding can "lead to program cuts jeopardising previous successes, put continued treatment in peril, and threaten to reverse gains made in the past two decades" (2014a:15). Furthermore the "decrease in funding could also imperil the Global Health Governance system's ability to

respond quickly and effectively to new outbreaks… to say nothing of funding existing programs" (Youde, 2014a:15).

3.4.2.4. The politics of fear

While the Copenhagen School's analysis explains *how* securitisation takes place, it does not explain *why* it takes place, in other words what it is that make infectious diseases a credible risk to security and allows for securitisation to take place (MacLean, 2008:485). Abraham argues that perceptions of risk at the societal level are an important precondition to securitising an issue (2011:802). Thus "unless a society is primed to perceive a threat as posing an existential risk, it will be difficult to securitize that risk" (Abraham, 2011:802). Abraham consequently points to an 'issue culture' around emerging infectious diseases discourse, which describe these diseases as 'dreaded risks' that are seen as threats to security. Three determinants are identified by Abraham (2011:803) for an issue culture to gain prominence: "the issue needs to have powerful sponsors; it needs to have cultural resonance; and the messages need to have a successful fit with media norms and practices." The sponsors of the issue culture are identified as the scientists and commentators warning against the dangers of previously unknown viruses propagating the 'emerging disease worldview', as discussed in chapter 2. The mass media furthermore play an important role in the setting of the public agenda, and the infectious disease discourse benefits from prominent media figures that are receptive to the message of the emerging disease worldview. Media receptivity to the emerging infectious disease message ensures that emerging diseases remain front-page news. Lastly, the issue needs to resonate with public concerns. The social and cultural context within which the emerging infectious disease world view took root can be understood in the context of the anxieties caused by modernisation and globalisation (Abraham, 2011:804-805). By the 1990s these anxieties found resonance in popular films, books and other cultural products, and viruses captured the public imagination as the new 'other', enemy to fear. The role the media plays in framing health security threats should thus not be ignored.

3.4.2.5. Militarisation of humanitarian aid

Another actor that is not explicitly mentioned in Lakoff's framework is the military who have increasingly been active in global health security initiatives, especially in terms of the provision of humanitarian aid. The military's capacity to rapidly assemble highly trained personnel who are experienced in operating in extreme and dangerous conditions is cited as one of the factors that make the military well suited to respond to humanitarian crises. Other

factors include resources, expertise in logistics, transportation and command and control (Lancet, 2014). The military have played a defining role in providing emergency medical assistance following natural disasters; recent examples include amongst others the South Asian tsunami in 2004 and the earthquake in Haiti in 2010 (Chretien, 2011:3). American and other military involvement in the provision of humanitarian aid in conflicts throughout the 1990s and 2000s, such as in Somalia, Rwanda, Kosovo, Afghanistan and Iraq, however raised concerns over the 'militarisation of humanitarian aid'. Much of the criticism is focused on the military's poor record of coordination of efforts alongside other civilian agencies, which still provide the majority of global humanitarian aid. Humanitarian actors' broadly agree that humanitarian assistance must be provided according to the core principles of: humanity, neutrality and impartiality; and some feel that the military is encroaching in 'humanitarian space' and violating the core principles of humanitarian assistance (Chretien, 2011:6). Military forces are perceived as neither neutral nor impartial as they "are deployed with a specific security and political agenda" (Chretien, 2011:7).

An indication of the role of the military, especially the United States military, in Global Health Governance is evident in the role played by the American Department of Defence's (DoD) overseas laboratories in addressing vulnerability to emerging infectious diseases (Russel, Rubenstein, Burke, Vest, Johns, Sanchez, Meyer, Fukuda & Blazes, 2011:1). The DoD has a long history of medical research and development, performed through a network of overseas laboratories. The DoD has, as of 2009, five laboratories in operation in Cairo, Egypt; Nairobi, Kenya; Bangkok, Thailand; Lima, Peru; and Jakarta, Indonesia. Historically the focus of these laboratories was limited to the "research and development of products, such as vaccines, antimicrobials or diagnostics, which would benefit the health of DoD forces throughout the world" (Russel *et al*., 2011:1). Since the 1990s a need was recognised for the incorporation of global emerging infection surveillance initiatives. The DoD Global Emerging Infectious Surveillance and Response System (DoD-GEIS) was thus established. In 2008 DoD-GEIS became a Division of the Armed Forces Health Surveillance Centre (AFHSC-GEIS). As of 2009 AFHSC-GEIS provided direction, funding and oversight, with 92 countries involved either in terms of active surveillance, capacity-building initiatives or participation in training exercises

3.5. Conclusion

In the emerging disease world view the current public health infrastructure is seen as incapable of addressing the threat posed by emerging and re-emerging diseases in a globalised world. Two narratives have developed representing diverging views of how this problem should be addressed. Global health security approaches are focussed on preparedness practices and building capacity for the surveillance and containment of potentially catastrophic infectious disease outbreaks. Humanitarian biomedicine however advocates developmental efforts to provide adequate health infrastructure to lessen the burden of disease in developing countries. Advocates of these approaches argue that the crisis is not disease emergence but the political and technical failure that led to the collapse of public health infrastructure in the first place. These two differing responses to the "crisis of nation-state-based systems of public health" form the basis for Lakoff's two regimes of global health. These two regimes also correspond to the two main approaches to security studies in general, that of traditional state-based security and that of human security, thus linking Lakoff's framework to broader discussions within security studies. Lakoff outlines these two regimes by identifying six categories in which the regimes differ from each other. These six categories are: the targeted disease, the source of the pathogenicity, organisations and actors, the techno-political intervention, the target of the intervention and ethical stance. These six categories, within the two regimes suggested by Lakoff, will be used to analyse the case study of the 2014-2015 Ebola outbreak in West Africa.

Chapter 4: The Ebola outbreak of 2014-15

4.1. Introduction

In chapter 3 the framework suggested by Lakoff was discussed in more detail, elaborating on the two regimes of Global Health as identified by Lakoff. These two regimes, the dominant *global health security* regime and the more cosmopolitan *humanitarian biomedicine* regime, highlight the complexities of global health initiatives. These complexities lead to difficulties in defining Global Health, centrally the question of "security for whom?" Only developed Western states? Or all nation states? And "security from what?" Should the focus be only on infectious disease that could potentially threaten Western state security or also on addressing the ailments afflicting developing states? The answer many scholars come to is that Global Health security is primarily focussed on protecting Westerns states from health threats originating from outside their borders and not on addressing *global* health insecurity. The research question of this study is whether a broader approach to global health security can be identified in practice, not only conceptualised narrowly in terms of health security for developed states, but a more truly *global* health security, and what the implication of such an approach would be.

In chapter 4 Lakoff's framework is applied to the case study of the Ebola outbreak in West Africa in 2014-15. This outbreak typifies a case of the threat that emerging diseases pose to both the developed and developing world. It also highlights the relationship between developed and developing states in terms of infectious disease outbreaks and the mechanisms of Global Health Governance. The Ebola Virus outbreak in question began in Guinea at the end of 2013 and spread from there to Liberia and Sierra Leone. There were also several isolated cases in other countries. This outbreak was unprecedented in both scale and geographic reach, as previous outbreaks were much smaller and mostly limited to rural areas were the spread could more easily be controlled. The outbreak reached urban areas and spread across borders running ahead of quarantine measures. By September 2015, 15 232 confirmed cases of Ebola with a total of 11 306 deaths had been reported, making this the largest Ebola outbreak on record (CDC, 2015c).

In this chapter a brief background to the Ebola Virus in general, and specifically the 2014-15 outbreak in West Africa, is given. In the rest of the chapter Lakoff's framework is applied to the case study. This is done in terms of the categories identified by Lakoff to differentiate between global health security and humanitarian biomedicine: the **targeted disease**, the

source of the pathogenicity, the **organisations and actors** involved, the **techno-political intervention**, the **target of the intervention** and the **ethical stance**. Lastly, the utility and implications of Lakoff's framework are analysed. The facts are firstly discussed broadly, in terms of the categories identified by Lakoff before the argument is brought together in the last section.

4.2. Ebola Virus Disease

4.2.1. The history of Ebola

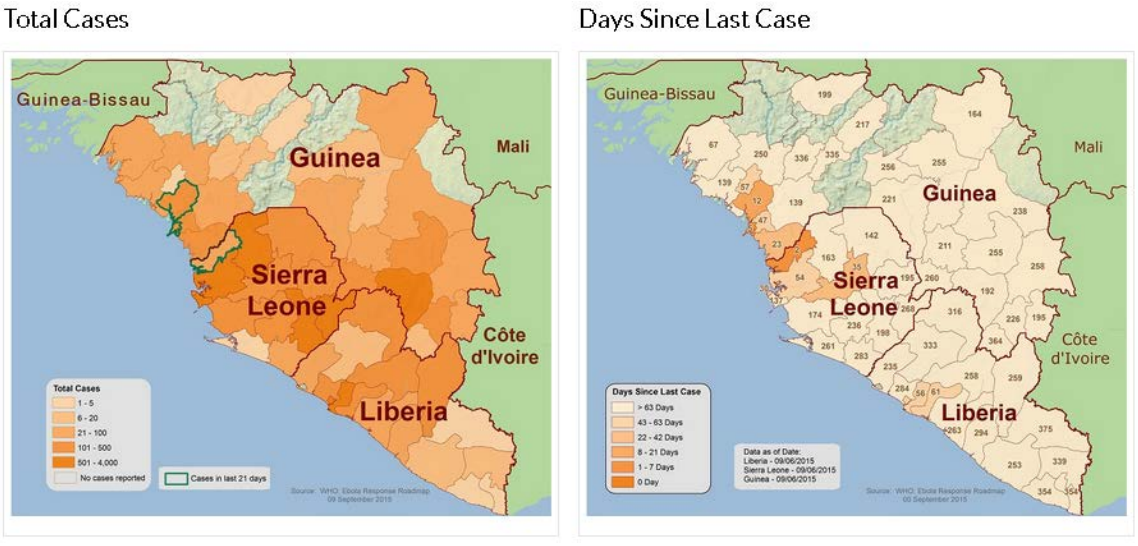
The Ebola Virus disease, formerly also known as Ebola Haemorrhagic Fever was first identified in 1976 during two nearly simultaneous outbreaks in what is today the Democratic Republic of the Congo (DRC) and in Uganda. The disease is named after the Ebola River in the DRC, which flows near the village of Yambuku were the disease was first discovered. In the past outbreaks have occurred in the DRC, Gabon, South Sudan, Ivory Coast, Uganda, Republic of the Congo and South Africa (see appendix B for a detailed account of previous outbreaks). The current outbreak is the 26th (other sources call it the 25th outbreak) on record since it was first identified. This most recent outbreak is considered the most severe and devastating outbreak ever recorded, unprecedented both in its scale and impact (CDC, 2015g).

Four subtypes of Ebola have been identified: Ebola Sudan, E. Zaire, E. Ivory Coast and E. Reston. The origin of the last-mentioned is in Asia, and it affects mainly primates; there has never been a reported case of human infection. The other three subtypes are present on the African subcontinent and are pathogenic affecting humans. The subtypes differ in terms of fatality rates with E. Zaire having a fatality rate of about 80% and E. Sudan a 50% fatality rate (Pourrut, Kumulungui, Wittmann, Moussavou, Délicat, Yaba, Nkoghe, Gonzalez & Leroy, 2005:1005). Symptoms of Ebola include the following: fever, severe headache, muscle pain, weakness, fatigue, diarrhoea, vomiting, abdominal pain and unexplained haemorrhage. Symptoms may appear from between 2 to 21 days after exposure. Early diagnosis of Ebola is difficult as early symptoms such as fever, are nonspecific to Ebola infection. Due to its similarities to other diseases found in these regions, such as malaria, the diagnosis is easily missed in the early stages of the disease and it is often only after a failure to respond to anti-malarial and/or antibiotic treatment, and also often after others have become infected that cases are recognised (Groseth, Feldmann & Strong, 2007:408). Hospitals thus often serve as an amplification point for the infection, and health care workers

are especially vulnerable. The Ebola virus is only detectable in blood samples taken after the onset of symptoms such as fever, which accompanies the rise in circulation of the virus within the patient's body. It may take up to three days after symptoms start for the virus to reach detectable levels (CDC, 2015g). The natural reservoir host of the Ebola virus remains unknown, researchers however believe that the virus is animal-borne and that bats are the most likely reservoir, patients thus become infected through contact with an infected animal, which is called a spill over event (CDC, 2015b). The disease is then spread from person to person through direct contact, through broken skin or the mucous membranes of the eyes, nose or mouth. The virus can also be spread through the blood or bodily fluids of a person who is infected with or has died from Ebola. Ebola can also spread through direct contact with objects that have been contaminated with infected bodily fluids. Experimental vaccines and treatments for Ebola are being developed, but they have not yet been fully tested for safety or effectiveness. With no vaccine available, the focus is on continuing to thoroughly trace every person that has been in contact with an Ebola patient, to identify and respond to new cases early, the isolation and care of patients and on making sure that burials are carried out safely. Recovery from Ebola thus depends on good supportive care and the patient's own immune response. Ebola often has a fatality rate upward of 90 percent in humans. People who recover from Ebola develop antibodies that last for at least 10 years (CDC, 2015h) and the blood of these survivors has been used effectively as a serum in some cases.

4.2.2. 2014 outbreak

Figure 4-1 Outbreak Distribution Map



(CDC, 2015d).

4.2.2.1. The start of the outbreak

The 2014 outbreak of Ebola began in Guéckédou, Guinea in December 2013. Patient zero is believed to have been a 2-year old boy. By the time Guinea's Ministry of Health reported the outbreak to the WHO in March 2014, it had confirmed 49 cases and 29 deaths in four of Guinea's eight regions (Youde, 2014b). On 31 March 2014, Médecins Sans Frontières (MSF) publicly declared the outbreak as 'unprecedented' due to the geographic spread of the cases. This declaration was considered exaggerated and alarmist by many. On 1 April, the WHO, via its chief spokesperson in Geneva, called into question MSF's declaration, objecting that the virus dynamics were not unlike those of past outbreaks, nor was the outbreak unprecedented (MSF, 2015d:6). By April 2014 the disease had spread to the bordering parts of Liberia and Sierra Leone, but the number of victims was small. In May 2014, it started to look as if the outbreak was slowing down. The rates of new cases and deaths were smaller and there was some hope that control measures were showing their efficacy. Unfortunately, the numbers of new cases and deaths spiked again in June 2014, fuelling speculation that control measures had been removed too soon (Youde, 2014b). At the end of June 2014 the WHO's Global Alert and Outbreak Response Network (GOARN) organised a meeting in Geneva. At the meeting, MSF insisted on the urgent need to deploy an effective response in the region and made a dramatic call for extra support to be sent to Liberia. The call for help was heard but no further action was taken (MSF, 2015d:9).

4.2.2.2. International response

By August 2014 the total number of confirmed, probable, and suspected cases of Ebola in the three worst-affected countries plus Nigeria was 2240, with 1229 deaths, which implies a fatality rate of 55% (Briand, Bertherat, Cox, Formenty, Kieny, Myhre, Roth, Shindo & Dye, 2014:1180). While the WHO had deployed a small number of personnel from early on during the onset of the epidemic, the organisation was reluctant to declare a Public Health Emergency of International Concern (PHEIC), grading the epidemic as a grade 1, and eventually grade 2 emergency (moderate) under the WHO Emergency Response Framework. In August 2014, five months after the first cases were reported, the WHO declared the epidemic to be a PHEIC. A Public Health Emergency carries immediate consequences for all IHR signatories. Several recommendations were made for the four affected countries. These included that: "heads of state should declare a national emergency, activate national disaster-management mechanisms, and establish emergency operations centres" (Briand, Bertherat, Cox, Formenty, Kieny, Myhre, Roth, Shindo & Dye, 2014:1180). Furthermore it was advised

that the movement of people should be reduced; especially in areas of intense transmission such as in the border areas between Sierra Leone, Guinea and Liberia. “No international travel of infected persons and their contacts are allowed. Funerals and burials should be conducted in the presence of fully trained personnel to reduce the risk of spreading the infection. Extraordinary measures, such as quarantine should be implemented if necessary” (Briand *et al.*, 2014:1180). The declaration of a PHEIC furthermore, unlocks funding and activates expert capability faster. Research and the development of an Ebola vaccine was thus accelerated in early August 2014, when the WHO confirmed that using Ebola products not yet tested on humans was ethical and even encouraged, given the exceptional nature of the outbreak. Public and private research sectors thus fast-forwarded the process to start clinical trials from what usually takes years to mere months. The WHO furthermore released an Ebola Response Roadmap. In September 2014, the UN Security Council (UNSC) adopted Resolution 2177 calling the Ebola outbreak a threat to international peace and security, and urging UN member states to provide more resources to fight the outbreak. The UN Mission for Ebola Emergency Response (UNMEER), the first-ever UN emergency health mission, was established on 19 September 2014. In October and November 2014 several countries also deployed troops to help contain Ebola and preserve stability in West Africa, among which US troops to Liberia, UK troops to Sierra Leone, French troops to Guinea and Chinese troops throughout the region (Larson, 2014).

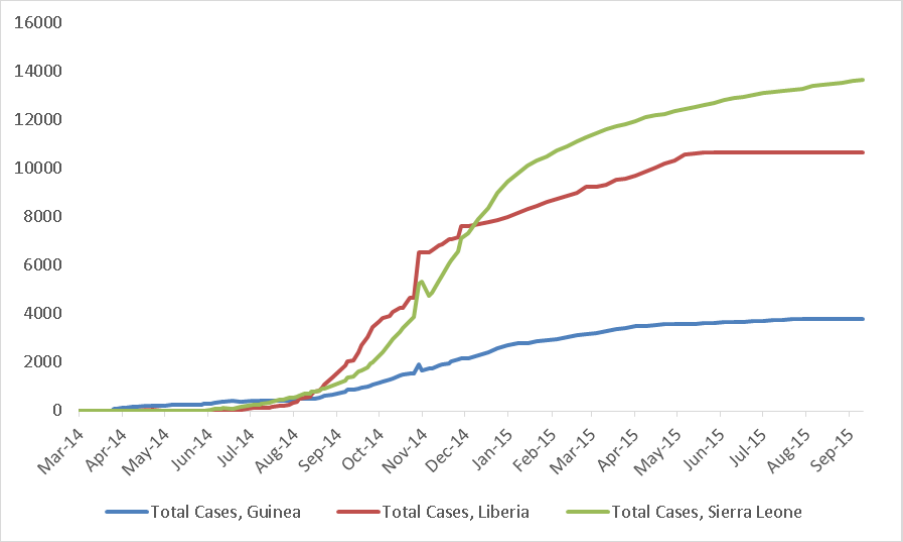
The epidemic in West Africa has continued to claim lives. An average of 30 people have become infected each week in Sierra Leone and Guinea and the outbreak periodically re-emerges in Liberia. After Liberia was declared Ebola-free on the 9th of May 2015, six new cases were confirmed since the end of June 2015 (MSF, 2015a), but it was declared Ebola-free again on 3 September 2015. For a country or region to be declared Ebola-free there have to be no new patients for 42 days (double the incubation period of the virus). A recent WHO Situation Report (8 September 2015) states that during the week of 31 August to 6 September there were only two confirmed cases of Ebola; one in Guinea and one in Sierra Leone (WHO, 2015a). As of September 2015 there have been 15 232 confirmed cases of Ebola with a total of 11 306 deaths (CDC, 2015c). Table 4-1 shows the total case counts of the 2014 Ebola outbreak in West Africa and Figure 4-2 indicates the number of reported cases in the three worst-hit countries; Guinea, Liberia and Sierra Leone.

Table 4-1 2014 Ebola Outbreak in West Africa - Case Counts[7]

Country	Total Cases	Laboratory-Confirmed Cases	Total Deaths
Countries with Widespread Transmission			
Guinea	3791	3338	2530
Sierra Leone	13701	8703	3953
Countries with Former Widespread Transmission and Current, Established Control Measures			
Liberia (as of May 9)	10666	3151	4806
Liberia (after June 8)	6	6	2
Previously Affected Countries			
Nigeria	20	19	8
Senegal	1	1	0
United States	4	4	1
Mali	8	7	6
United Kingdom	1	1	0
Italy	1	1	0
Total	**28199**	**15232**	**11306**

(CDC, 2015c).

Figure 4-2 Reported Cases Graph



(CDC, 2015e).

[7] As of September 9 , 2015

4.2.2.3. The perfect storm

Peter Piot, one of the co- discovers of Ebola, called the 2014 outbreak a 'perfect storm'. Piot argues that the unprecedented scale of this outbreak can be ascribed to several factors (Piot, 2014). These factors include a "regional context of decades of civil war, dysfunctional health services, strong traditional beliefs amplifying transmission, slow and inadequate national and international response and a high population mobility across borders" (Piot, Muyembe & Edmunds, 2014:1034).

The epidemic itself differed from those in the past in the sense that it was not limited to rural, isolated communities and therefore threatened to last much longer and affect more people than any previous instance. The epidemic's spread across such a vast geographical area also created further difficulty in containing the disease. The problem was not so much the number of cases, but that the hotspots were spread out in so many locations which made tracking and isolating cases very difficult. The cross-border mobility of the population in the region also contributed to the rapid spread of the disease.

Many observers point to the regional context as an important factor in the rapid spread of this Ebola outbreak. All three of the hardest his countries had experienced decades of civil war that depleted state capacity, and led to the collapse of public health infrastructure (Abramowitz, 2014). As pointed out by Harman (2014), while the incapability of the health systems of these countries to cope with Ebola can be explained by a lack of government investment in public health infrastructure or health surveillance structure to identify and contain the spread of the disease, that is only one part of the explanation. "Such an explanation rests on the presumption that strategic planning and financing for health in West African countries is done by the government alone, rather than a myriad of intergovernmental organisations, bilateral aid agencies, and non-governmental organisations" (Harman, 2014). The identification of specific health goals, such as through the MDGs, and the funding that has accompanied them has generated "health silos where vertical or disease-specific interventions have been prioritised over horizontal interventions that fund the health system more broadly" (Harman, 2014). These health silos distort the normal working of public health, clustering funds towards specific diseases, and results in under-funding of other health concerns. Harman (2014) thus argues that "while money towards health concerns in Africa grew significantly since the 2000s… it is clear that a narrow focus on goals, targets, and

performance missed the core to the health of any population: a functioning health system." This neglect is starkly revealed when countries have to respond to a health crisis like Ebola.

Focus is also placed on the role of traditional beliefs in the spread of the disease, especially traditional burial practices in the region. Funerals are known to be a factor in spreading Ebola as traditional funerals in the region include the washing and touching of the diseased. The corpse is often still highly infectious. Cases have been reported in which the virus has been transmitted to mourners at funerals and especially to those involved in preparing the body for burial (Richards & Mokuwa, 2014). Many outside sources thus blame victims for their irrational customs such as the burial practices; their primitive food habits such as the consumption of bush meat; and their hostility towards modern medical practices such as relying on traditional medicine and in a few cases physically attacking health workers.

Lastly the blame for the unprecedented spread is also placed on the slow and inadequate national and international response to the outbreak of the disease. The governments of Guinea and Sierra Leone were initially very reluctant to recognise the severity of the outbreak, which obstructed the early response. This is far from unusual in outbreaks of infectious diseases; there is often little political will to immediately sound the alarm for fear of causing public panic, disrupting the functioning of the country and driving away visitors and investors (MSF, 2015d:8). The international community did not fare any better in their response, with the WHO especially receiving much critique regarding the way in which they handled, or in fact did not handle, the outbreak.

4.3. Lakoff's categories

Lakoff identifies six categories to delineate the difference between the state focussed approaches of global health security and those of humanitarian biomedicine which is more concerned with the health insecurity of individuals. As mentioned, one of the limitations of Lakoff's framework is that it does not provide a detailed account of the categories and thus needs to be supplemented from other sources. These categories do however correspond to the main points of contention in discussions about health security, such as the question of security for whom and security from what? These categories can thus prove useful in framing a discussion on a broader conceptualisation of health security which includes humanitarian concerns as considerations of health security. This broader conceptualisation might bring about a form of Global Health Governance that addresses the health security of all states and individuals and thus brings it closer to a truly *global* approach to health governance. A

broader conceptualisation could prove more beneficial to developing states that do not possess the capacity to address the health security concerns of its citizens without outside assistance.

4.3.1. Targeted diseases - framing the threat

According to securitisation theory the manner in which issues are presented, in other words the language used, is important when constructing a security threat (Buzan et al., 1998:26; Elbe, 2006:124). Security threats do not exist independently, but are rather socially constructed through language. Attention should thus be paid to the way in which actors talk about and address issues, as the way in which a threat is framed reveals the normative foundation of interventions, as well as determining the technical approaches taken.

Global health security approaches are focused on infectious diseases as a threat to state security, the economy and political stability. This is in line with the emerging disease worldview. The focus is thus placed on preparative measures to strengthen state capacity to deal with potential infectious disease outbreaks that could prove detrimental to the state. These measures include mechanisms for disease surveillance and containment. In the case of the Ebola outbreak of 2014-15 the majority of state-led interventions during the height of the outbreak were focused on the containment of the disease in the West African region, as well as preventing the global spread of the disease by means of quarantine and travel bans. The primary aim of most actors in the response was thus to reduce the transmission of Ebola to zero. The objectives identified by UNMEER provide a good summary of how this played out in terms of priorities: to stop the outbreak; treat the infected; ensure essential services; preserve stability; and prevent further outbreaks. Kahn argues that this "is a solid approach that has certainly helped push towards the aim of zero cases, but there is a crucial gap: it fails to put the dignity and humanity of the affected community at the centre of the response; fails to look at the social and cultural context of the crisis; and fails to look at the humanitarian consequences of the outbreak" (2015:12). Foreign states' interventions in the crisis were mainly focused on the protection of their own national interests. This is evident in China's involvement in the crisis with the deputy director-general of the Chinese Centre for Disease Control and Prevention explaining the logic behind Chinese deployment of personnel in the West African region by stating "that there are now 25,000 Chinese businesses registered in Africa and China is the continent's largest trading partner" (Larson, 2014). This points to the

fact that the justification of China's involvement is the protection of its own national economic interest, as well as the protection of its own nationals in the region.

Health problems, in terms of health security, are often equated to a foreign enemy that must be vanquished or contained, thus evoking traditional security language. This is evident in discussions on the securitisation of HIV/AIDS, as well as in relation to the 'war on Ebola'. Most notable is the US 'Ebola surge'. On 16 September 2014 the US announced the deployment of 3000 troops to set up command and control, logistics and engineering to support civilians working in the region (Cohen & Servick, 2014). The focus was on building Ebola Treatment Units to provide more beds for Ebola patients as well as creating isolation spaces. Assistance was also provided for the training of health care workers, building an air bridge to move people and materiel into West Africa more rapidly, as well as providing protective equipment (The White House Press Office, 2014). These troops were not tasked with treating the actual people affected by Ebola, but only with helping improve the health care capabilities of the region. President Obama's announcement of the deployment framed the Ebola outbreak as a security issue rather than a public health crisis, stating that "it's a potential threat to global security" (BBC, 2014). Similar rhetoric was used in the UK with the Daily Mirror running a story with the headline "UK troops to battle killer epidemic" (Sully, 2014). By evoking the language of national security, reliance is placed on intelligence, surveillance and the military. A notable exception to the general state-based interventions during the Ebola outbreak is Cuba's deployment of nearly 500 professional healthcare workers, trained doctors and nurses, to treat African patients who contracted Ebola (Peppe, 2014). Cuba thus placed actual bodies on the ground in the form of their "army of white robes" and not only placed "boots on the ground", thus addressing the need for medical personnel to treat the people infected with Ebola.

A drawback of these health security approaches are that they are most suited to addressing short term, acute crises of particular health security threats and focused on addressing the symptoms, rather than the causes of insecurity. Furthermore these mechanisms are mostly only activated by headline grabbing health events that inspire human dread and societal disruption disproportionate to the actual level of mortality and morbidity posed by the disease (Enemark, 2007; Davies, 2010). This can be seen in the media storm around individual cases of infection outside of the West African region that propagated the fear that Ebola would spread globally, or even mutate and become air borne and thus even more deadly (Cohen & Servick, 2014). While the majority of the recorded Ebola cases were reported in Guinea,

Liberia and Sierra Leone, a few travel-associated cases were reported elsewhere. Cases in Nigeria, Senegal, Mali and the United States highlighted the potential for contagion via travellers from Africa. This narrative dominated media portrayals of Ebola (Dionne & Seay, 2015:6). Although the risk of contracting Ebola outside of West Africa remains almost negligible, emotions such as fear, anxiety, and disgust, fanned by media reports and combined with gaps in knowledge about the disease serve to support restrictive policies and increase prejudice (Casey, 2015:7). Several observers also point out that the international intervention only began gearing up after two foreign nationals contracted Ebola (Fauci, 2014:1084).

Humanitarian biomedicine approaches, on the other hand, focus on lessening the burden of disease in developing countries that lack the public health capacity and infrastructure to address both health crises and the regular run of the mill public health activities. This is thus a more globalist approach that aims to address the health threats facing the global population, irrelevant to nationality, and focusing on existing health issues, not potential threats. The actors involved in such interventions are generally non-governmental organisations, like MSF who provided assistance since the beginning of the Ebola crisis in Guinea. While MSF's primary focus in the region was the containment of the Ebola outbreak, they simultaneously addressed the broader longstanding humanitarian crisis in the region which was aggravated by the Ebola outbreak. An example of this focus on broader humanitarian action is the provision by MSF of primary health care services that were suspended as a result of Ebola, specifically the provision of anti-malarial drugs (MSF, 2014b). The outbreak of Ebola could potentially cause a setback in the progress that had been made in controlling malaria, and other communicable diseases, in the region (Takahashi, Metcalf, Ferrari, Moss, Truelove, Tatem, Grenfell & Lessler, 2015:1240). The reason for this is on the one hand, the collapse of health care capability due the massive scale of the Ebola outbreak which overwhelmed health care services and the effect this had on health care workers (who were one of the demographics most affected by the Ebola outbreak). Furthermore people sick with diseases, other than Ebola, avoided hospitals and medical centers for fear of catching Ebola and many treatable diseases thus went untreated. Ebola caused a ripple effect, further impairing the health security of individuals in these countries and exacerbating the existing health crisis in the region. There is thus a need to not only address the short-term crises related to the Ebola outbreak, but to address the broader humanitarian concerns in the region as well.

4.3.2. Source of pathogenicity

As mentioned previously the emerging infectious disease narrative holds that health security interventions are needed due to the changes brought about by globalisation, and its accompanying social and environmental/ecological transformations, that serve as the source of the renewed onslaught of infectious diseases. In discussions on how this current Ebola outbreak differs from previous outbreak, and why it is so much bigger than previous outbreaks a lot of focus is placed on the locus of the epidemic. The initial outbreak occurred in an area in Guinea, bordering on both Sierra Leone and Liberia. There is a lot of cross-border movement in this area amplifying infections. Previous outbreaks primarily occurred in rural villages where the disease was easily contained, but in this case the disease spread to urban areas, further fanning on the outbreak. The disease was thus helped along by urbanisation and development, which strengthened the links that spread the disease from one region to the next. The same holds true on the global scale where an infected person can travel anywhere in the world in a matter of hours or days, before even showing symptoms and thus creating a whole new locus of infection. Furthermore urbanisation and the spread of human habitation bring people more and more into contact with animals that serve as reservoirs for various zoonotic diseases, as is the case with Ebola and various strains of influenza. The point thus holds true that the Ebola Virus did not in itself become more virulent, but the changes in the environment around it provided the perfect breeding ground for a mass outbreak.

While changes in the environment contributed greatly to the unprecedented size of the outbreak, this is only one aspect of concern, the failure of development and the accompanying lack of access to healthcare is another factor. As pointed out by Sandvik (2014), the outbreak occurred in “countries with corrupt and ineffective governments, where inadequate basic health care, food insecurity and poverty made life difficult long before Ebola came along.” The conclusion can thus be reached that the spread of Ebola has little to do with the characteristics of the virus and instead with the fact that “over the last couple of months, families of sick individuals have tried to care for patients without even the benefits of running water or a safe place to dispose of waste; and disinfectant such as chlorine and plastic gloves are simply unaffordable for many” (Sandvik, 2014). Observers hence point out that if the Ebola outbreak had occurred in a developed state, with strong healthcare capacity to treat and isolate the infected, as well as trace contacts to prevent further infections, the outbreak would have been contained much more easily. The West African countries in which

the outbreak occurred were however almost completely without these capabilities, a fact that exacerbated the wider socio-economic consequences of the Ebola outbreak and the resulting humanitarian crisis. Sandvik (2014) summarises these rippling effects:

> Left without access to treatment due to overburdened or abandoned health facilities, many succumb to the old scourges of African ill-health, such as malaria and tuberculosis. These deaths are not counted in official statistics on Ebola deaths, although they are results of the outbreak. Orphaned children are not taken in by their extended family due to fear of transmission of the disease. Schools are closed in many areas, with serious consequences for development and social stability far into the future. Food shortages are becoming a serious problem.

The wider humanitarian crises caused by the outbreak will not disappear with the disease and the only way to address them and prevent future outbreaks of this magnitude is to focus on developmental aid on strengthening public health infrastructure in developing countries Humanitarian biomedicine has described the Ebola outbreak as an instance of the global health system failing, and they are right.

4.3.3. Organisations and actors

4.3.3.1. State actors

Health security focuses on state led organisations as the primary actors in global health. The emphasis is thus placed on the role of national and international health agencies in mitigating health crises. As seen from the discussion so far it is evident that both national and international state actors failed in addressing the Ebola epidemic. The national governments of Guinea, Sierra Leone and Liberia did not possess the necessary health security or public health capacity to address the outbreak and assistance from the international community was essential. The help from international actors was however slow and insufficient. Especially the WHO, which is supposed to be the governing body of global health security, received scathing reviews on the way it handled the crisis. An independent panel of experts concluded that the WHO does not have a robust emergency operations capacity or culture (Garrett, 2015). Fidler (2015:1888) argues that "the Ebola outbreak revealed countries' lack of political commitment, battered the WHO's credibility, and weakened the IHR." Recent events have led to an ongoing call for reform within the organisation. The WHO however states that its role lies in giving technical advice and assistance, as contained in their Ebola Response Roadmap, and not as first responder (Fink, 2014). In the words of WHO director-general, Margaret Chan: "We are not the first responder … the government has first priority to take care of their people and provide health care. WHO is a technical agency" (Nature,

2014). This however raises the question of who should be the first responder if states are incapable of addressing a global health crisis?

One group of actors not explicitly mentioned in Lakoff's framework is the military, as they are probably included as part of the state apparatus, but in the case of the Ebola outbreak this is an important actor which should be included in the analysis. Military actors have been increasingly active in humanitarian assistance in recent years as they can rapidly assemble and deploy highly trained personnel who are experienced in operating in extreme and dangerous conditions. What is different in this instance is the fact that a humanitarian organisation (MSF), which is usually critical of military involvement in humanitarian interventions, called for the assistance of military personnel. The call was not for typical military assistance in the form of enforcement of quarantine, containment or crowd control. Instead they called for the construction of field hospitals with isolation wards, the dispatch of trained personnel, the deployment of mobile laboratories to improve diagnostics, and the establishment of an air bridge to move personnel and material to and from West Africa (MSF, 2014a). MSF's international president, Dr Joanne Liu, made a fervent appeal to the UN member states saying that: "Many of the member states here today have invested heavily in chemical and biological response. To curb the epidemic, it is imperative that states immediately deploy civilian and military assets with expertise in biohazard containment. I call upon you to dispatch your disaster response teams, backed by the full weight of your logistical capabilities. We cannot cut off the affected countries and hope this epidemic will simply burn out. To put out this fire, we must run into the burning building" (MSF, 2015d:13). This statement both points to the intertwining nature of health security and biosecurity initiatives and the importance of capable state capacity in addressing any form of health crisis.

As mentioned the U.S., the UK, France and Chinese headed the call and deployed military personnel to the region in October and November 2014. Furthermore the UN established the UN Mission for Ebola Emergency Response (UNMEER), the first-ever UN emergency health mission in September 2014. As stated previously, the priorities of UNMEER were to stop the outbreak, treat the infected, ensure essential services, preserve stability and prevent further outbreaks. International state actors did thus respond to the crisis, but as pointed out by Dr Joanne Liu, MSF's international president: "when Ebola became an international security threat, and no longer a humanitarian crisis affecting a handful of poor countries in West Africa, finally the world began to wake up" (MSF, 2015d:11). This again raises the point that

states are more easily moved to respond to health crises if their own security is threatened than when the crisis is in a sense more a humanitarian crisis than a health security crisis.

Another important role played by military actors is in terms of biodefence research and development. One major output of US military biodefence R&D into Ebola is the drug ZMapp. Several new products currently in use as part of the Ebola response also offer examples of medical technologies with military roots. One is the FilmArray BioThreat Panel, a rapid-test Ebola screening kit currently used by US military medical staff on deployment in West Africa and in US hospitals. Likewise, product testing of a new antiseptic skin product, Provodine, is now being deployed by the US army and provided to healthcare workers and emergency responders at risk of contracting Ebola in Liberia. Another area of medical technology led by US military research are mobile health platforms, called mhealth, which utilise networked technologies to track and report health emergencies. Often in the form of smartphone applications, mobile health platforms collect, share and manage data for research and remote patient management. The Nigerian government has credited mobile health technology with helping to contain an Ebola outbreak in Nigeria (Kaplan & Easton-Calabria, 2015:9).

4.3.3.2. Non-state actors

Most aid organisations were also reluctant to take on the perceived risk of working with Ebola, fearing that they would not be able to protect their staff. As explained by MSF “Ebola provokes an understandable and almost universal fear that is unequalled by any other disease. The lack of effective treatment, the painful and distressing symptoms and the high mortality rate cause extreme public anxiety, not only in the communities affected, but also among healthcare workers themselves, who are often among the first to fall ill, further discouraging additional volunteers from coming forward to help” (MSF, 2015d:11). The only notable exception is the international non-profit organisation Médecins Sans Frontières, who until October 2014 was almost alone in the field (other NGOs mentioned active in the region at the beginning of the outbreak are amongst others Samaritan’s Purse, the French Red Cross and ALIMA). MSF's activity in West Africa during the Ebola outbreak has been one of their biggest ever emergency responses. MSF alone is reported to have cared for 35 per cent of all confirmed cases in this outbreak (MSF, 2015c:19). MSF has up to date spent 77 million euros in the three worst affected countries (with the majority of the funds raised from private supporters and public institutional donors). In previous outbreaks, it was only necessary for

MSF to operate one Ebola management centre (EMC) at a time. During this epidemic, they set up and managed 15 EMCs and transit centres in the three most-affected countries, operating up to eight simultaneously. The largest EMC they had built before this outbreak had 40 beds; in this epidemic they established a 250-bed EMC, the biggest ever. While the scale of their operations in the region was the biggest to date, it was not nearly big enough. The MSF had to turn away people from their EMC. The response was not only limited to Guinea, Sierra Leone and Liberia, they also provided assistance in Mali, Senegal, Nigeria as well as during an unrelated outbreak in the Democratic Republic of Congo. To scale up the their response capacity MSF furthermore provided Ebola management training to thousands of people from within MSF, as well as from national governments, the United Nations and from other nongovernment organisations (MSF, 2015c:3).

Another example that indicates the role played by non-state actors in global health crises is the involvement of groupings such as the Ebola Private Sector Mobilisation Group (EPSMG). This group was formed the behest of ArcelorMittal, the steel and mining company, and includes over 100 companies. It has since August 2014 provided resources to front-line responders, advocated for international support, and pledged its members to do all they can to remain open for business throughout the Ebola outbreak, as a vote of confidence in the affected countries (Kamara, 2015). Other global businesses have also contributed significant resources in cash and in kind. While the overall reasoning behind these actions might be self-preservation of economic interests, the corporate social responsibility of these companies provided real help to the people affected by Ebola. African business leaders also contributed individually early on in the crisis. CEOs from many different private sectors also belatedly came together under the auspices of the African Union as the African Business Roundtable on Ebola, in Addis Ababa in November 2014, where they committed logistical support, in-kind contributions and over $28 million of initial pledges. The fund, which is managed by the African Development Bank, is helping to finance the recent deployment of African (ECOWAS) health workers in the Ebola-affected countries (Kamara, 2015). Some of the largest contributions to the United Nations Ebola response were not supplied by states but private entities. Humanitarian biomedicine's inclusion of non-state actors is thus increasingly relevant as the role played by these actors in global health keeps growing.

4.3.4. Techno-political intervention

This term refers to the actual actions that are taken to address health risks. The main mechanisms of global health security are focused on disease surveillance and containment by means of global disease surveillance to alert states of outbreaks of infectious diseases, building response capacity in states to address outbreaks of infectious diseases of global concern, as well as putting measures in place to rapidly develop biomedical interventions to manage novel pathogens. The argument is however made that as this process is only geared towards certain infectious diseases, it does not necessarily help build broad public health capacity or lead to overall improvement in healthcare delivery in states with weak infrastructure. These measures thus might only prove to advance health security in states that already possess capable health infrastructure to fight off infectious diseases. This point is emphasised in the case of the Ebola Virus outbreak.

After the 2003 SARS outbreak revisions were made to the IHR that were supposed to improve responses to global health emergencies. As stated by Belluz and Hoffman (2014) "these regulations were meant to make the reporting of outbreaks more transparent and build capacity for disease surveillance. Individual countries were supposed to pay to improve their disease surveillance and reporting systems, and richer countries were under an international legal obligation to support their poorer cousins." This has thus far not been the case, with compliance and implementation spotty, 196 states are parties to the IHR, but many still do not possess the requisite core health-system capacities. Many poorer countries are incapable of developing strong disease surveillance systems or further health security mechanisms to improve response capacity, as many lack even basic health infrastructure. The WHO however has no dedicated funds for IHR capacity building, and high-income countries mostly fail to meet their obligations to help build health systems (Gostin, 2014:50).

This is exactly the case with the Ebola outbreak. The importance of disease surveillance and response capacity is proved when the rapid response of other West African countries to Ebola outbreaks within their borders, especially Senegal and Nigeria (WHO, 2015b) are compared to the situation in Guinea, Liberia and Sierra Leone (this will be discussed in more detail in the next section on the target of intervention). Observers point out that a possible solution to the failure of detection and response in developing countries is the creation of an international contingency fund coupled with a reserve corps of trained staff for rapid emergency response (Nature, 2014). The creation of these measures will however be difficult in a global health system that is already struggling with insufficient funding.

Ultimately the best response capacity is a strong and capable public health system capable of dealing with any kind of health emergency. For developing countries this means prioritising health in national budgets (where possible) and renewing the focus on preventative public health measures, rather than only curative medical care. For developed countries this means putting foreign aid into public health systems, and not only for addressing certain diseases; thus building infrastructure coupled with clear coordination mechanisms, preparedness plans and lab and surveillance networks (Belluz & Hoffman, 2014). The same principle should be applicable to health aid flowing from NGO and other actors. As mentioned earlier, health aid has led to so-called health silos where vertical, disease-specific interventions are prioritised over horizontal interventions that fund the health system more broadly.

The approach of humanitarian biomedicine differs from that of global health security in the sense that it aims to provide health aid in the form of provision of essential health care, as well as promoting drug and vaccine research and development for diseases afflicting developing nations with the aim of alleviating the burden of disease. The importance of such aid measures was again evident in the role played by MSF during the Ebola epidemic in treating patient and providing basic health services where possible.

The point where the global health security and humanitarian biomedicine approaches converge is in the need for the development of biomedical interventions to address disease. They however again differ in their motivation. Global health security focuses on the development of biomedical interventions to manage novel pathogens. These medicines are often too expensive for developing states to afford and the focus is also only on pathogens that are deemed high risk for western states, such as influenza. Humanitarian biomedicine, in contrast, promotes drug and vaccine research and development for diseases specifically afflicting developing nations in order to alleviate the burden of disease in these countries. This difference in approach is evident in the development of Ebola vaccines. The disease has been around since the 1970s but was considered an endemic infectious disease that did not pose a threat of international spread, as all outbreaks before 2014 were easily contained in rural locations. There was thus no impetus for the production of a vaccine for the prevention of Ebola infections. As soon as western cases of Ebola infections were reported and the risk of international spread of the disease was a real threat, the development of an Ebola vaccine was fast tracked. The WHO even approved the use Ebola products not yet tested on humans as ethical due to the extent of the crisis. Further criticism was levelled against the way in which these vaccines were supplied to Westerners and not to locals (Dionne, 2014).

4.3.5. Target of intervention

The target of intervention is determined by the stance taken in terms of the techno-political intervention as discussed above. The techno-political intervention of global health security approaches are disease surveillance and response mechanism. The target of the intervention is thus national public health infrastructure with a focus on proficient health security policies, strategies and capacities. Humanitarian biomedicine on the other hand intervenes to alleviate the burden of disease, the target of these interventions is thus the individual.

As mentioned above, health security mechanisms are focused on disease surveillance and containment, which is built on the International Health Regulations. The IHR requires the reporting of any public health emergency of international concern (PHEIC) as well as "real-time dialogue among affected governments and WHO to propose real-time evidence-based actions at borders" (Heymann, 2015:1184). Furthermore the IHR also requires states to strengthen eight core capacities in public health. These capacities are seen as essential in detecting, assessing, notifying and reporting events as well as responding to public health risk and emergencies of national/international concern. The IHR thus provides a global framework for the enhancement of collective health security. This framework also focusses on investment by states and development agencies to strengthen public health in terms of infectious disease detection and containment.

One of the aggravating factors in the recent spread of Ebola was the lack "of trained disease detectives, functional laboratories, and quality surveillance data to make timely decisions about the use of resources to prevent, detect, and respond to infectious disease threats" within the borders of the hardest hit countries (Tappero, Thomas, Kenyon & Frieden, 2015:1889). Ebola spread to several more countries including Nigeria, Senegal, Mali, Spain, and the USA. The spread was however quickly controlled in these countries. Tappero *et al.* point to the existence of components of Global Health Security Alliance (GHSA) mechanisms in these countries as the defining difference, arguing that even nascent capacity was crucial in facilitating a timely response. In Nigeria, for example, "a dedicated public health emergency operations centre for polio eradication and a cadre of Field Epidemiology Training Program[8]-trained epidemiologists which facilitated the multi-sectoral coordination and extensive contact tracing efforts needed to control the outbreak once it spread within Lagos, and from Lagos to a second city" (Tappero, Thomas, Kenyon & Frieden, 2015:1889).

[8] Field Epidemiology Training Program is a practices-based public health training modelled on the U.S. CDC Epidemic Intelligence Service (CDC, 2015a).

Nigeria, Senegal and Mali all had the benefit of world-class laboratories which could produce fast test results. The experience in all three countries highlights the importance of strong surveillance and rapid response at the beginning of an outbreak (MSF, 2015d:12).

The problem with this approach lies in the fact that while the IHR is aimed at mitigating and preventing collective health risk, they do not provide for access to health goods and services (Heymann, 2015:1184). The health security of the individual is thus not strengthened per se. Youde highlights the issues related to the IHR focus on surveillance capacity in terms of the MERS-CoV disease, stating that the "IHR (2005) compels the development of surveillance capabilities even if a state might have other more pressing public health needs and concerns" (2014a:14). The result of this might be that "a state could invest in developing the surveillance systems necessary to track cases… but it might not be left with sufficient resources to develop or maintain the public health infrastructure that can address the cases of the new disease" (Youde, 2014a:14).

Individual health security, the focus of humanitarian biomedicine approaches, is dependent on access to vaccines, drugs and health services, all utterly lacking in the three worst hit countries. These countries lack essential public health infrastructure, even the most basic component of which is adequate health workforces. Even before the outbreak Liberia and Sierra Leone had only about 90 and 136 doctors respectively (Gostin, 2014:1), and Guinea was only marginally better off with fewer than 1000 doctors for a population of more than 11 million people, a frightening statistic that has only been made worse by the Ebola outbreak with health workers being one of the most vulnerable populations. The latest numbers released by the WHO state that a total of 881 health workers have been infected in the region since the beginning of the outbreak. Among them, there have been 513 deaths (WHO, 2015a). The Ebola outbreak will thus also have further long-term impacts on the provision of public health in these countries. Observers argue that the Ebola outbreak in West Africa has exposed the limits of the current approach to the global governance of infectious diseases, as international efforts to strengthen health security quickly faltered when confronted with the weak national health systems of the affected countries (Elbe & Roemer-Mahler, 2015:1).

It can thus be argued that while disease surveillance and containment is a vital part of global health security, more focus should be placed on broader and strong public health infrastructure because without it states are incapable of addressing the health problems of their citizens, especially communicable diseases. The infectious nature of communicable

disease further makes the strengthening of public health infrastructure in developing nations a global issue of concern. While the focus of global health security is on addressing health issues that transcend the nation state, the national public health system is still the anchoring institutions of the global health system.

4.3.6. Ethical stance

The ethical stance taken by actors provides the overarching reason for global health interventions. The ethical stance is either one of self-protection or one of common humanity, the problem is that an ethos of security often wins over an ethic of care, a fact that will not surprise realists. The Ebola outbreak once again highlighted the fact that self-protection is a better motivator for the activation of global health security mechanisms and the involvement of the international community in health crises abroad, than a call on common humanity. The primary concern of the international response to the Ebola outbreak was to contain the disease and not to alleviate the suffering of the people affected by the disease. The main focus of global health security is the security threat posed by disease, but these disease outbreaks also create humanitarian crises that need to be addresses as well, especially in the context of developing countries. This is a concern not incorporated into the global health security framework, which is concerned with the security of the state. Disease is however intrinsically linked to people. The question is thus: can Global Health Governance be divorced from the people that are infected by the disease?

While it is argued that “global health touches upon all the core functions of foreign policy: achieving security, creating economic wealth, supporting development in low-income countries and protecting human dignity” (UN General Assembly, 2009:2), it is the first two considerations that often carry the most weight. Hwenda, Mahlathi and Maphanga counter this point arguing that “the inherent nature of foreign policy as a function of national interest whose primary objective is to protect national security, economic interest and national development precludes health foreign policy from serving the altruistic purposes it is alleged to serve. Its primary purpose, the pursuit of self-interest, is a goal that potentially undermines solutions that respond to the threats of greater relevance to developing countries” (2011:11).

Global health is underpinned by a variety of collective values, amongst others, economic progress, human rights and international development (Davies, Kamradt-Scott & Rushton, 2015:2). These values differ with regard to their success in ensuring sustained political engagement among foreign policy, security and health policy communities. Davies, Kamradt-

Scott and Ruston (2015:2) argue that the norms that underpin the contemporary global health security regime are based on "a set of expectations about how a 'responsible state' and a 'responsible international community' should behave in the event of a disease outbreak that has the potential to spread across national borders." Global health in general entails the consideration of the health needs of all people above the concerns of particular nations; something that transcends the nation state; if global health security mechanisms are only activated for self-protection then international health security means that each state is only concerned with its own security.

4.4. Problematising the 'global' nature of global health security

If Fidler's definition of global public health governance as "the use of formal and informal institutions, rules, and processes by states, intergovernmental organizations, and non-state actors to deal with challenges to health that require cross-border collective action to address effectively" (Fidler, 2010:3) is used to conceptualise Global Health Governance and combined with the discussion on the Ebola outbreak in West Africa, several points of importance can be drawn.

Firstly the "formal institutions, rules and processes" of Global Health Governance might not be effective in addressing *global* health insecurity (meaning addressing the health insecurity of all populations). As summed up by Brown and Stoeva, current Global Health Governance mechanisms are only "targeted narrowly to infectious diseases, provide weakened security for only a few, and ultimately leave a vast majority of human beings vulnerable to what in most cases are preventable health risks" (2014:304-305). Even just in terms of infectious diseases there is a disjuncture between the diseases that are securitised and the actual infectious diseases that impact on health security in the developing world. As mentioned earlier the field of health security is thus trapped between an impetus to elevate health as an existential security threat and the fact that, as presently conceived, security might in the end not be a useful approach for framing and institutionalising the health problems that confront most of the world's populace. This is illustrated by the case study of the Ebola outbreak where a disease that was considered to be an endemic African disease, and thus ignored in Global Health Governance considerations, became a global health risk. Furthermore the way in which the formal institutions, rules and processes of Global Health Governance engaged with the Ebola outbreak was focused narrowly on containing the disease and stopping the international spread thereof rather than on treating the people infected with the disease and

addressing the humanitarian crises caused by the disease outbreak. An important point thus highlighted in this chapter is the power asymmetries that exist in the global governance of health.

Hwenda, Mahlathi and Maphanga (2011:11) argue that ensuring global health security for all requires a balanced and inclusive agenda. Hwenda *et al.* thus suggest that developing countries should engage more with health security discourse to ensure better representation of their national and regional health security concerns (2011:12). They argue that this is the only way in which global health security cooperation can translate to positive health outcomes for developing states and "prevent the marginalisation of their health security threats, and bring the required balance to the global health security agenda" (Hwenda, Mahlati & Maphanga, 2011:12-13). The current global health security regime is however still primarily focused on the state-centred approach to global health security and not on individual health security. The suggestion made by Lakoff that "humanitarian biomedicine could be seen as offering a philanthropic palliative to nation-states lacking public health infrastructure in exchange for the right of international health organizations to monitor their populations for outbreaks that might threaten wealthy nations" (2010:75), could thus be the best option to create a more mutually beneficial and truly 'global' health security regime that also brings about benefits to the citizens of developing states. A broader conceptualisation of health security to include humanitarian concerns in considerations of health security is thus a salient point. In the case of the Ebola outbreak the more humanitarian-focussed approaches of non-state actors represented the majority of the actions that addressed the health insecurity of the individuals affected by the disease. In this case non-state actors played a more important role in addressing the disease outbreak than state actors.

A second point that can be made as a result of this discussion is thus the importance of the inclusion of non-state actors, and the role they play in Global Health Governance, and in discussions on health security. This is especially relevant as the Ebola outbreak revealed the lack of a global first responder that could act in the event of an infectious disease outbreak in developing countries that lack the capacity to stop the spread of the disease. In the case of the Ebola outbreak the burden was carried by non-state actors, who were later joined by foreign military forces. While military forces have proved to be effective in humanitarian crisis intervention, states mainly only deploy their military forces in cases where there national interest is impacted. Non-state actors are thus the most likely first responders in infectious disease outbreaks in developing countries.

4.5. Conclusion

In this chapter the Ebola Virus outbreak in West Africa in 2014, the biggest ever recorded, which affected up to 15 000 people and has caused 11 306 deaths so far is discussed. The discussion was structured by using Lakoff's framework of two regimes of global health as outlined in chapter 3. This Ebola outbreak highlighted several problematic aspects of the working of global health initiatives. Firstly, the slow response of international actors and the lack of a formal first responder in the case of a global health emergency in developing states that lack the response capacity to address epidemic outbreaks of international concern on their own. The Ebola outbreak also indicated the importance of non-state actors in taking up the role of first responders and addressing the health security of individuals affected by the disease; where the formal Global Health Governance interventions by state actors were more focused on containing the disease and thus on protecting their own health security. The formal Global Health Governance intervention in this case was thus more focused on self-protection rather than the ethics of common humanity and an ethic of care. The categories identified by Lakoff proved useful in discussing the aims, methods and values of global health security initiatives. While the categories focus on the separate aspects of Global Health Governance, when combined they provide a useful summary of the aims, methods and values of global health security initiatives. The major aim of global health security initiatives in the case of the Ebola outbreak was the containment of the disease. This case also illuminated the fact that the main methods of global health security initiatives, based on infectious disease surveillance and containment, is inadequate without the support of a strong and broad-based public health capacity; something that was lacking in the worst hit countries, Guinea, Liberia and Sierra Leone. The dominant values that motivated these initiatives were thus mainly those of self-protection and not concern for the individuals suffering from the disease. In chapter 5 the main points of this study are summarised, the research question is answered and suggestions for future research on the topics are made.

Chapter 5: Conclusion

5.1. Introduction

In this study the development of Global Health Governance, especially in terms of the global governance of infectious diseases and the accompanying process of health securitisation, was explored. The focus was on the nexus between health (individual and collective), the state and security. While international cooperation on health concerns have a long history, the current embodiment of global health is relatively novel. The idea of global health security gained prominence in the 1990s through the emerging disease world view. Since the 1980s a renewed sense of dread about emerging and re-emerging disease was felt, primarily in relation to HIV/AIDS. Since then several new chapters have been added to the book on infectious disease of global concern, which only increased the prominence of global health security initiatives. With each new outbreak Global Health Governance was challenged and expanded on. The perception however exists that global health security is not a well-defined concept and means different things to different people.

The aim during this study was to use Lakoff's framework of two regimes of global health security to explore how global health security initiatives play out in practice. The research problem identified was derived from the contesting meanings and implications of the concept of health security, with differing understandings of the precise aims, methods and values that are represented by Global Health Governance initiatives. As summed up by Lakoff: “different projects of global health imply starkly different understandings of the most salient threats facing global populations, of the relevant groups whose health should be protected, and of the appropriate justification for health interventions that transgress national sovereignty” (2010:59). The specific focus of the research problem is the question raised by Rushton on the precise meaning of health security; “security for whom and security from what?” (2011:779). This is an especially relevant question to ask in terms of the health security of developing states as many analysts point to the fact that health security is mainly focussed on the containment of infectious diseases to protect the health security of Western states and not on disease prevention. Lakoff's proposition of a second global health regime focused on alleviating the burden of disease in developing countries, could thus prove useful in the creation of a more 'global' approach to Global Health Governance, meaning a system that puts more weight on the health needs of all people than on the concerns of particular nations.

This study thus investigated the following research question:

- Can two regimes of global health security, as theorised by Lakoff, be identified in practice in the event of an infectious disease outbreak such as the Ebola outbreak of 2014, and if so what are the implications or utility of a broader approach to global health security?

Sub-questions supporting this primary research question included the following:

- What are the implications of the development of a more humanitarian orientated global health security regime for developing states?
- Can these two regimes be complementary in practice, as suggested by Lakoff?
- What does the existence of these two regimes prove with regard to the question "security for whom, security from what"?

This chapter is concluded by a summary of the argument developed throughout each of the preceding chapters, answering the research question, and suggesting future avenues of research on the topic.

5.2. Summary of the study

Chapter 1 comprised a general introduction to the study with an overview of the background on the topic of health security. The problem statement was developed, linking up with the issue of the contesting conceptualisations of global health security, as well as the research question stated. The theoretical background centred on Lakoff's theory of two regimes of global health was demonstrated, followed by a discussion of the methodology and the limitations of the study.

In chapter 2 there was a further elaboration of the development of the ideational and institutional foundations of Global Health Governance, specifically how the link between health and security came to be, through the emerging world view. The concept of health security has been criticised, with scholars questioning whether securitisation is the best way in which to promote health issues, as well as criticising the form that health securitisation interventions take. One of the important points highlighted is the relationship between collective and individual health security. Several critics argue that collective health security

can only be achieved by strengthening individual health security, as individual health security is the building block of collective security, and by extension, global health security; and thus necessitates global action to provide individuals in all countries with access to essential health care. Current Global Health Governance mechanisms are however based on knee-jerk crisis response not suited to addressing chronic health crises or alleviating underlying causes of infectious disease, such as poverty and poor health care in developing countries. Global Health Governance thus only addresses the health security of a few. This short-term focus on outbreak containment, and not disease prevention, leaves us vulnerable to the next global health crisis. The current national security state-based approach to health security is furthermore not suited to alleviating the long-term causes of ill-health globally; hence this approach will not lead to truly 'global' health security. It is hypothesised that a possible solution could be a broader conceptualisation of health security to complement the current statist approach with a more humanitarian approach, as suggested by Lakoff.

In chapter 3 there is further expansion of the framework suggested by Lakoff. The base of Lakoff's argument is that Global Health is not a unified field. Lakoff thus proposes the existence of two regimes within Global Health: *global health security* and *humanitarian biomedicine*, which combine normative and technical elements to provide a rationale for managing infectious disease on a global scale, but rest on very different visions of both the social order that is at stake in Global Health and the most appropriate technical means of achieving it. Global health security approaches focus on preparedness practices, building capacity for the surveillance and the containment of potentially catastrophic infectious disease outbreaks. Humanitarian biomedicine however advocates for developmental efforts to provide adequate health infrastructure to lessen the burden of disease in developing countries. Lakoff furthermore suggests that the juxtaposition between these two regimes can be useful in highlighting some of the tensions inherent in many contemporary Global Health initiatives. These tensions include questions about what diseases should be the focus of health security, who the main actors should be, the form these health interventions should take and what the underlying ethical stance should be (one of self-protection or common humanity). The categories proposed by Lakoff to differentiate between the two regimes are thus useful in outlining the issues of concern and debate within the literature on health security. Lakoff's framework also conforms to the dominant narratives of health in IR, thus linking up with theoretical discussions on health security. The traditional conceptualisation of security as propagated by realists is focused on state security, and forms the basis of most of the

literature on health security. This state-centric conceptualisation of security forms the theoretical foundations of the first regime identified by Lakoff – *global health security*. The second regime of global health suggested by Lakoff, *humanitarian biomedicine*, can be associated with this globalist developmental stream of thinking stemming from human security approaches. The researcher lastly identified some points not focussed on in Lakoff's framework. Firstly, in practical terms it is unlikely that a global health regime focused more on the alleviation of the long-term global disease burden will become a dominant consideration in health security. The most pragmatic approach would thus be to focus on the incorporation of these concerns in some way in to the current Global Health Governance system. Furthermore the importance of certain actors not mentioned explicitly in Lakoff's framework was discussed, amongst which, the media and the military.

In chapter 4 Lakoff's framework is applied to the case study of the Ebola outbreak in West Africa in 2014-15. This outbreak was firstly chosen because it is the most recent epidemic that warranted global health security intervention. Furthermore it typifies the case of a threat that emerging diseases pose to both the developed and the developing world. It also highlights the relationship between developed and developing states in terms of infectious disease outbreaks and the mechanisms of Global Health Governance. The following points were drawn from this discussion: (1) that the formal institutions, rules and processes of Global Health Governance might not be effective in addressing *global* health insecurity (meaning addressing the health insecurity of all populations); (2) the importance of the inclusion of non-state actors, and the role they play in Global Health Governance, especially as first responders in time of crisis. Lastly it was concluded that the categories identified by Lakoff prove useful in framing a discussion on the aims, methods and values of global health security initiatives.

5.3. The study's findings with regards to the research question and sub-questions

In terms of Lakoff's framework, a duality in global health initiatives is present in the case of the Ebola outbreak in West Africa. Two differing regimes can definitely be identified in Global Health Governance initiatives during the Ebola outbreak. The dominant international narrative on the outbreak was focussed more on the state-based approach to global health security, but the role of non-state actors, acting in accordance with what Lakoff terms humanitarian biomedicine approaches, was an important feature of the international action to

address the epidemic. All things considered, the conclusion can be drawn that it is unlikely that a global health regime focussed more on the alleviation of the long-term global disease burden (in line with the humanitarian biomedicine approach) will become a dominant consideration in health security. The reason for this is that an ethos of security has so much more political pull than an ethic of care. The most pragmatic approach would thus be to focus on the incorporation of these concerns in some way in the current Global Health Governance system, as suggested by Lakoff. So while aspects of a broader approach to global health security do exist, they are not the dominant considerations. As currently conceptualised, global health security is narrowly focused on the health security of a few, and thus not truly *global* health security. One of the central points made throughout the study is the problematisation of the global nature of Global Health Governance.

Global health should imply the consideration of the health needs of all people above the concerns of particular nations. This is however not the case. The current Global Health Governance mechanisms are not much more than knee-jerk crisis responses that are not suited to addressing chronic health crises or alleviating the underlying causes of infectious diseases, such as poverty and poor healthcare in developing countries. The conclusion can thus be drawn that the current global health security regime is not sufficient to address the health security of developed, as well as developing states. The main reason for this is that developing states lack the public health capacity to address health crises, and global health security's emphasis on disease surveillance and containment capacity does little to remedy this situation. More emphasis should thus be placed on strengthening broad-based public health capacity. In the current configuration of Global Health Governance a more humanitarian-orientated global health security regime can have more beneficial implications for addressing the health security of developing states and addressing human suffering in these countries.

In practical terms, Lakoff's suggestion of humanitarian biomedicine as complementary to global health security is the most feasible alternative to the current approach. Humanitarian approaches can be useful in addressing the issues left out of global health security, most importantly aspects of disease prevention.

Lastly, in terms of Rushton's question about health security meaning "security for whom and security from what?" Lakoff's framework provides several salient answers. The dominant global health security regime is focused on keeping Western states safe from infectious

diseases originating elsewhere. This state-based approach to global health security is thus not geared towards the protections of the health security of all individuals regardless of their nationality. This is however not the only regime active in Global Health Governance. There are actors operating according to the principles of common humanity, addressing the developmental, human and health security concerns of individuals in developing states, thus supplementing global health security approaches. If humanity as a whole wants to make any substantial attempt at addressing emerging and re-emerging infectious diseases, the current reactive approach will have to be replaced by a more proactive approach targeting the cause of these diseases. Health security is not only dependant on state security, but also on human security and developmental issues.

5.4. Recommendations for future research

As pointed out in Chapter 1, this study is limited in the sense that it only focused on one case study. An obvious recommendation for future research would thus be to apply Lakoff's framework to more cases of global epidemics to provide a more comprehensive analysis of the utility of Lakoff's framework and the points drawn from it in this study. Global Health Governance is furthermore also constantly changing to respond to the changing global environment. The issues identified in this study and the solutions proffered are thus also in constant flux. Each new global epidemic brings new tests and lessons to Global Health Governance, this was the case with the SARS outbreak in 2003 and the H1N1 outbreak in 2009, and the same might thus prove true for the current Ebola outbreak. An interesting study will thus be to explore the changes brought about by the Ebola outbreak in Global Health Governance mechanisms. The Ebola outbreak, and the international response to it, raised various questions of the effectiveness of Global Health Governance and the role of the WHO main governing body. Several calls were made regarding the need to restructure the WHO if it is to play its role in Global Health Governance effectively.

In terms of Lakoff’s framework further research is needed on the importance of ethics in global health, as this research identified it as one of the defining characteristics of Lakoff’s framework. Another interesting point highlighted in this research, that merits further study, is the role played by the military and non-state actors in addressing global health security crises. While the role of non-state actors is now better recognised, the military as actor in health security crises has not been studied. This is an especially relevant research topic.

Lastly, while the health security implications of the Ebola outbreak on the individual in general was discussed in this study, a further level of analysis can be added by focussing on the effects of Ebola on women and children specifically, as they are the most vulnerable individuals, thus potentially even more heavily affected by the outbreak. Women especially are much more susceptible to infection as they play the primary role of caregivers to the ill. The gendered effects of Ebola are thus also a salient avenue for future research.

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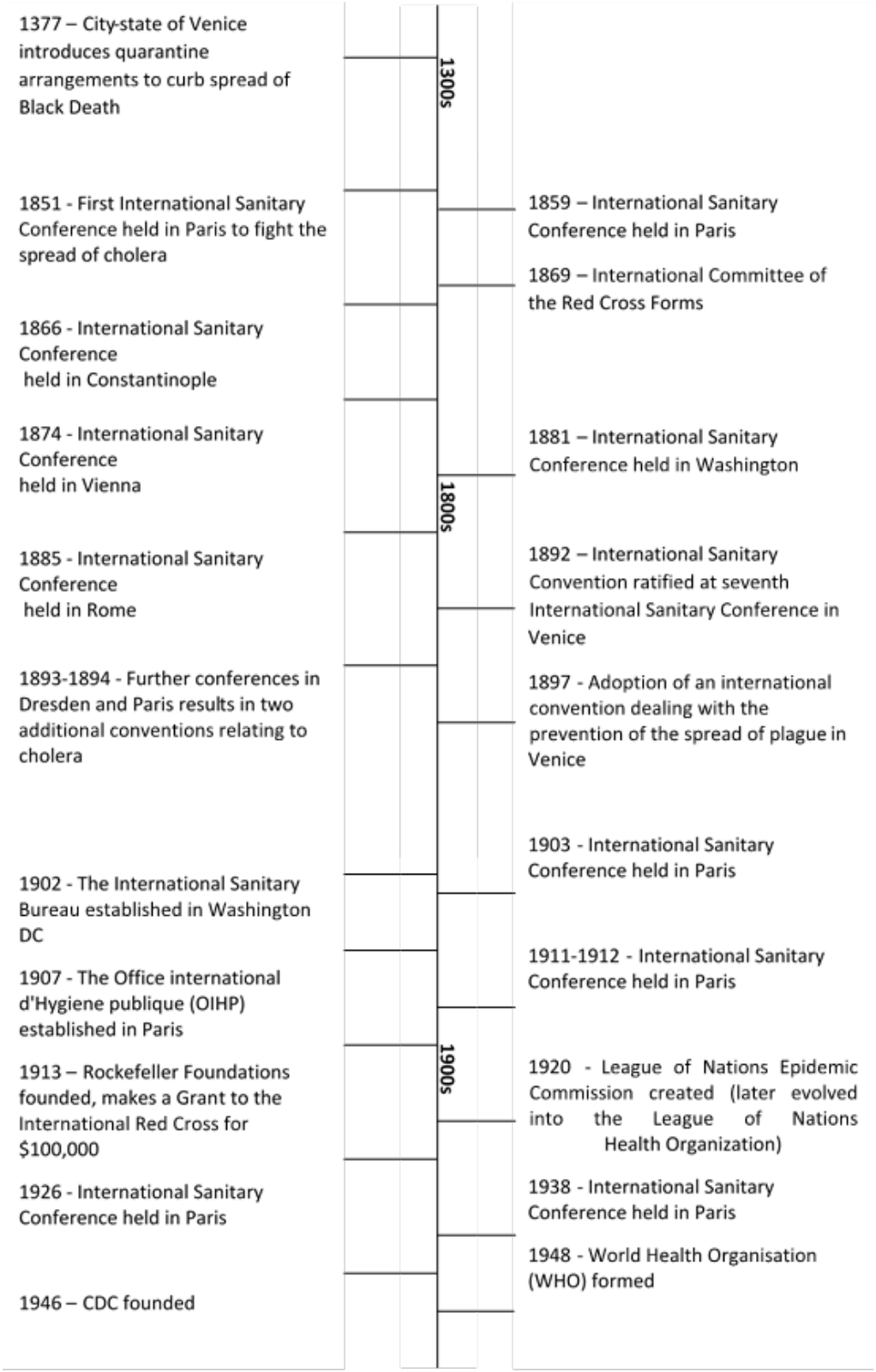
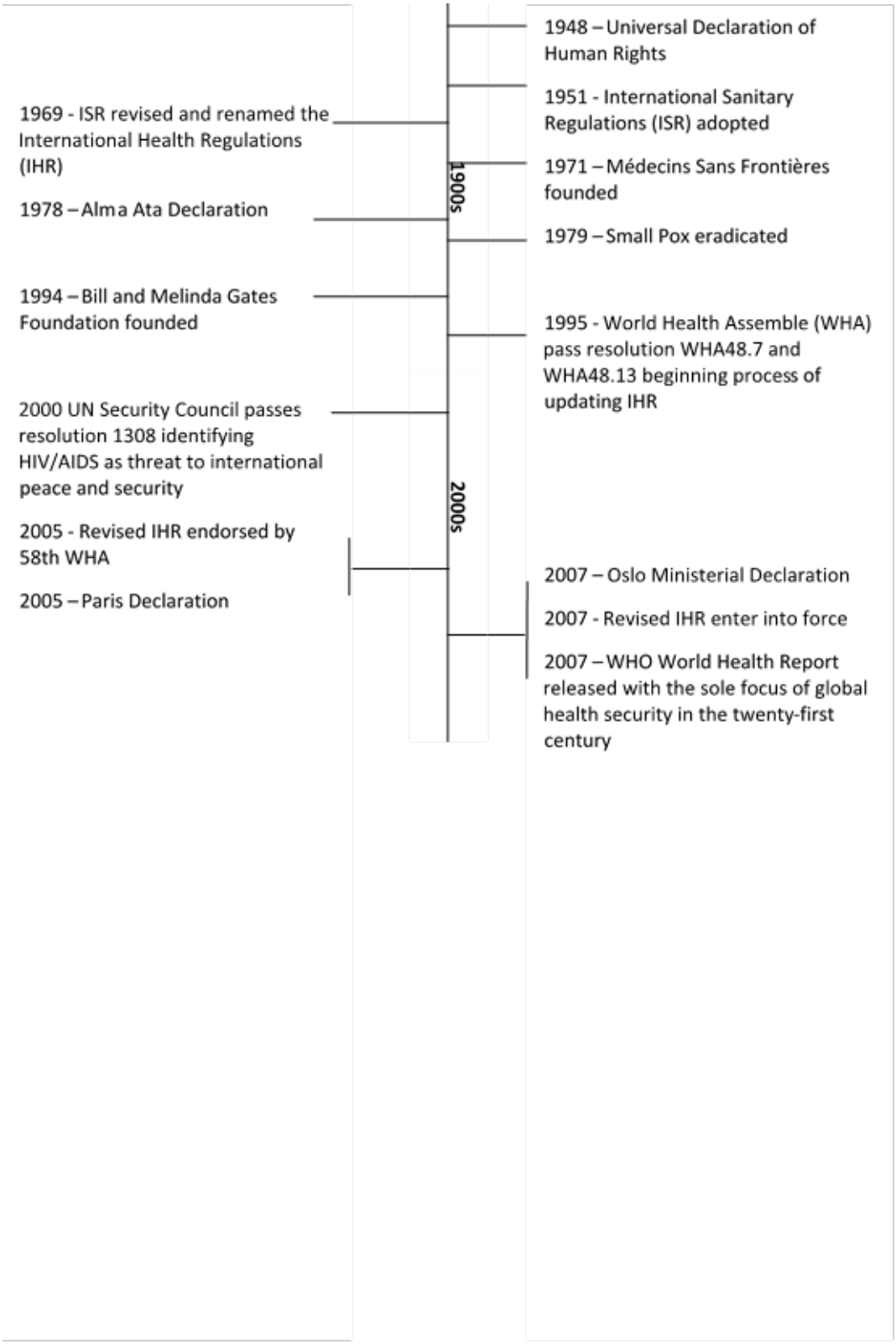
Appendices

Appendix A

Development of Global Health Governance





Appendix B

Known Cases and Outbreaks of Ebola Virus Disease, in Reverse Chronological Order*

Year(s)	Country	Ebola subtype	Reported number of human cases	Reported number (%) of deaths among cases	Situation
August-November 2014	Democratic Republic of the Congo	Ebola virus	66	49 (74%)	Outbreak occurred in multiple villages in the Democratic Republic of the Congo. The outbreak was unrelated to the outbreak of Ebola in West Africa.
March 2014-Present	Multiple countries	Ebola virus	28200	11306	Ongoing outbreak across multiple countries in West Africa. Number of patients is constantly evolving due to the ongoing investigation.
November 2012-January 2013	Uganda	Sudan virus	6*	3* (50%)	Outbreak occurred in the Luwero District. CDC assisted the Ministry of Health in the epidemiologic and diagnostic aspects of the outbreak. Testing of samples by CDC's Viral Special Pathogens Branch occurred at UVRI in Entebbe.
June-November 2012	Democratic Republic of the Congo	Bundibugyo virus	36*	13* (36.1%)	Outbreak occurred in DRC's Province Orientale. Laboratory support was provided through CDC and the Public Health Agency of Canada (PHAC)'s field laboratory in Isiro, as well as through the CDC/UVRI lab in Uganda. The outbreak in DRC had no epidemiologic link to the near contemporaneous Ebola outbreak in the Kibaale district of

					Uganda.
June-October 2012	Uganda	Sudan virus	11*	4* (36.4%)	Outbreak occurred in the Kibaale District of Uganda. Laboratory tests of blood samples were conducted by the UVRI and the CDC.
May 2011	Uganda	Sudan virus	1	1 (100%)	The Uganda Ministry of Health informed the public a patient with suspected Ebola Haemorrhagic fever died on May 6, 2011 in the Luwero district, Uganda. The quick diagnosis from a blood sample of Ebola virus was provided by the new CDC Viral Haemorrhagic Fever laboratory installed at the Uganda Viral Research Institute (UVRI).
December 2008-February 2009	Democratic Republic of the Congo	Zaire virus	32	15 (47%)	Outbreak occurred in the Mweka and Luebo health zones of the Province of Kasai Occidental.
November 2008	Philippines	Reston virus	6 (asymptomatic)	0	First known occurrence of Ebola-Reston in pigs. Strain closely similar to earlier strains. Six workers from the pig farm and slaughterhouse developed antibodies but did not become sick.
December 2007-January 2008	Uganda	Bundibugyo virus	149	37 (25%)	Outbreak occurred in Bundibugyo District in western Uganda. First reported occurrence of a new strain.
2007	Democratic Republic of the Congo	Zaire virus	264	187 (71%)	Outbreak occurred in Kasai Occidental Province. The outbreak was declared over November 20. Last confirmed case on October 4 and last death on October 10.
2004	Russia	Zaire virus	1	1 (100%)	Laboratory contamination.
2004	Sudan	Sudan	17	7 (41%)	Outbreak occurred in

	(South Sudan)	virus			Yambio county of southern Sudan. This outbreak was concurrent with an outbreak of measles in the same area, and several suspected EHF cases were later reclassified as measles cases.
November-December 2003	Republic of the Congo	Zaire virus	35	29 (83%)	Outbreak occurred in Mbomo and Mbandza villages located in Mbomo district, Cuvette Ouest Département.
December 2002-April 2003	Republic of the Congo	Zaire virus	143	128 (89%)	Outbreak occurred in the districts of Mbomo and Kéllé in Cuvette Ouest Département.
October 2001-March 2002	Republic of the Congo	Zaire virus	57	43 (75%)	Outbreak occurred over the border of Gabon and the Republic of the Congo. This was the first time that Ebola haemorrhagic fever was reported in the Republic of the Congo.
October 2001-March 2002	Gabon	Zaire virus	65	53 (82%)	Outbreak occurred over the border of Gabon and the Republic of the Congo.
2000-2001	Uganda	Sudan virus	425	224 (53%)	Occurred in Gulu, Masindi, and Mbarara districts of Uganda. The three most important risks associated with Ebola virus infection were attending funerals of Ebola haemorrhagic fever case-patients, having contact with case-patients in one's family, and providing medical care to Ebola case-patients without using adequate personal protective measures.
1996	Russia	Zaire virus	1	1 (100%)	Laboratory contamination
1996	Philippines	Reston virus	0	0	Ebola-Reston virus was identified in a monkey

					export facility in the Philippines. No human infections were identified.
1996	USA	Reston virus	0	0	Ebola-Reston virus was introduced into a quarantine facility in Texas by monkeys imported from the Philippines. No human infections were identified.
1996	South Africa	Zaire virus	2	1 (50%)	A medical professional travelled from Gabon to Johannesburg, South Africa, after having treated Ebola-infected patients and having been exposed to the virus. He was hospitalized, and a nurse who took care of him became infected and died.
1996-1997 (July-January)	Gabon	Zaire virus	60	45 (74%)	Occurred in Booué area with transport of patients to Libreville. Index case-patient was a hunter who lived in a forest camp. Disease was spread by close contact with infected persons. A dead chimpanzee found in the forest at the time was determined to be infected.
1996 (January-April)	Gabon	Zaire virus	37	21 (57%)	Occurred in Mayibout area. A chimpanzee found dead in the forest was eaten by people hunting for food. Nineteen people who were involved in the butchery of the animal became ill; other cases occurred in family members.
1995	Democratic Republic of the Congo (formerly Zaire)	Zaire virus	315	250 (81%)	Occurred in Kikwit and surrounding area. Traced to index case-patient who worked in the forest adjoining the city. The epidemic spread through families and hospitals.
1994	Côte	Taï	1	0	Scientist became ill after

	d'Ivoire (Ivory Coast)	Forest virus			conducting an autopsy on a wild chimpanzee in the Tai Forest. The patient was treated in Switzerland.
1994	Gabon	Zaire virus	52	31 (60%)	Occurred in Mékouka and other gold-mining camps deep in the rain forest. Initially thought to be yellow fever; identified as Ebola haemorrhagic fever in 1995.
1992	Italy	Reston virus	0	0	Ebola-Reston virus was introduced into quarantine facilities in Sienna by monkeys imported from the same export facility in the Philippines that was involved in the episodes in the United States. No humans were infected.
1989-1990	Philippines	Reston virus	3 (asympto matic)	0	High mortality among cynomolgus macaques in a primate facility responsible for exporting animals in the United States. Three workers in the animal facility developed antibodies but did not get sick.
1990	USA	Reston virus	4 (asympto matic)	0	Ebola-Reston virus was introduced once again into quarantine facilities in Virginia, and Texas by monkeys imported from the Philippines. Four people developed antibodies but did not get sick.
1989	USA	Reston virus	0	0	Ebola-Reston virus was introduced into quarantine facilities in Virginia and Pennsylvania by monkeys imported from the Philippines.
1979	Sudan (South Sudan)	Sudan virus	34	22 (65%)	Occurred in Nzara, Maridi. Recurrent outbreak at the same site as the 1976 Sudan

					epidemic.
1977	Zaire	Zaire virus	1	1 (100%)	Noted retrospectively in the village of Tandala.
1976	England	Sudan virus	1	0	Laboratory infection by accidental stick of contaminated needle.
1976	Sudan (South Sudan)	Sudan virus	284	151 (53%)	Occurred in Nzara, Maridi and the surrounding area. Disease was spread mainly through close personal contact within hospitals. Many medical care personnel were infected.
1976	Zaire (Democratic Republic of the Congo - DRC)	Zaire virus	318	280 (88%)	Occurred in Yambuku and surrounding area. Disease was spread by close personal contact and by use of contaminated needles and syringes in hospitals/clinics. This outbreak was the first recognition of the disease.

*This table only includes the cases up to the West African outbreak focussed on in this thesis

*Numbers reflect laboratory confirmed cases only (CDC, 2015f).